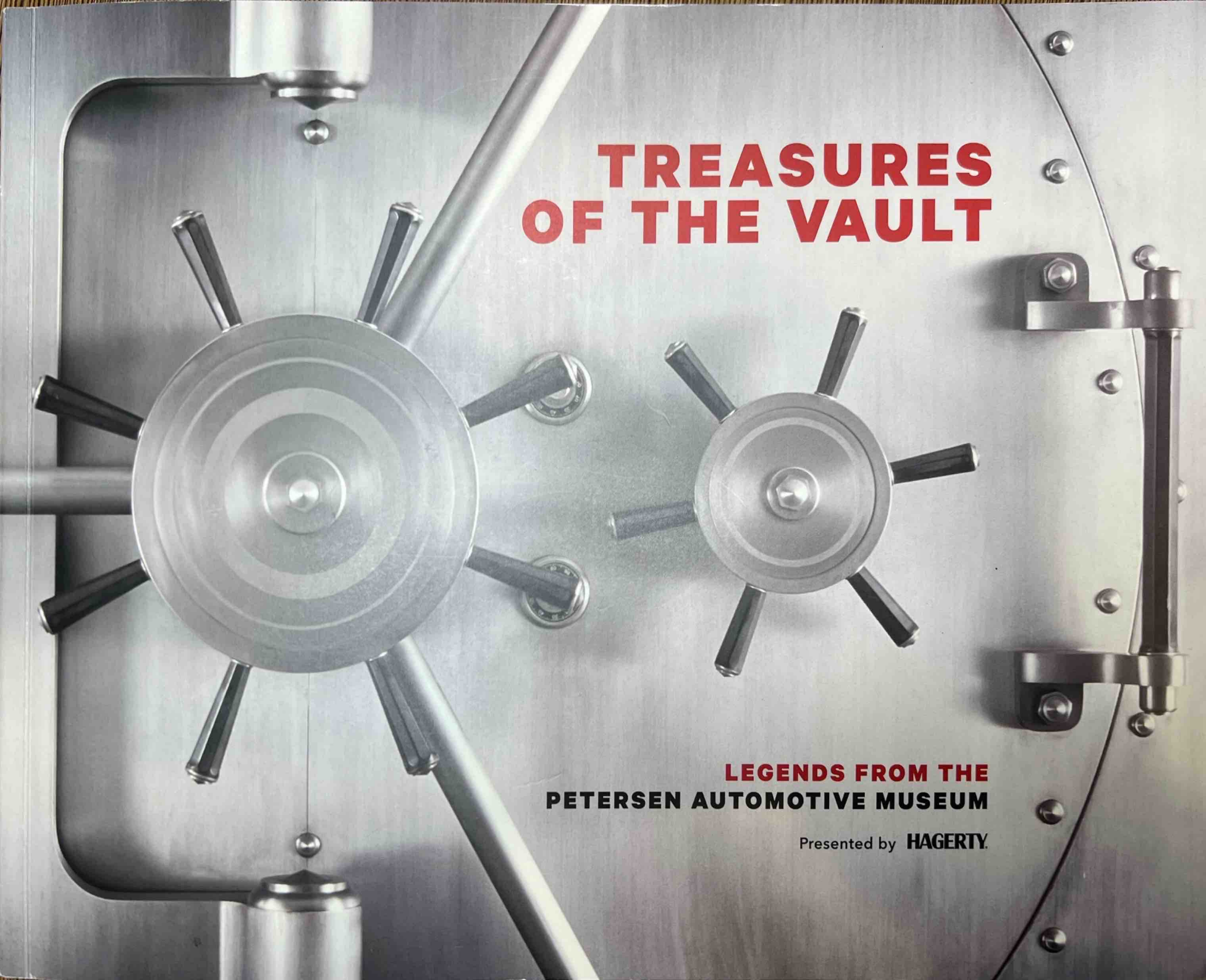
TREASURES
OF THE VAULT
LEGENDS FROM THE
PETERSEN AUTOMOTIVE MUSEUM
Presented by HAGERTY.

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THE VAULT
Presented by
HAGERTY.

TREASURES OF THE VAULT

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PETERSEN
AUTOMOTIVE MUSEUM

CONTENTS

INTRODUCTION 4

FOREWORD 6

1966 Volkswagen Beetle "Herbie" driven in *Herbie: Fully Loaded* (2005) 8

SPOTLIGHT 1925/34 Rolls-Royce Phantom I Aerodynamic Coupe by Jonckheere 10

1981 DeLorean DMC-12 Coupe 14

1979 Volkswagen Transporter driven in *Little Miss Sunshine* (2006) 16

1903 Cadillac Model A Runabout 18

1932 Ford "Ray Brown Roadster" 20

1959 Balchowsky Ol' Yaller Mark III 22

SPOTLIGHT 1929 Ford "NieKamp Roadster" 24

1952 Ferrari 212/225 Inter Barchetta by Carrozzeria Touring 28

SPOTLIGHT 1939 Bugatti Type 57C Cabriolet by Vanvooren 30

1964 Chevrolet El Camino "Blind Faith" by Harry Bradley 34

1947 Cisitalia 202 Coupe by Pinin Farina 36

1957 Chevrolet One-Fifty Two-Door Utility Sedan "Black Widow" by SEDCO 38

1970 Fiat 850 Shellette by Michelotti 40

1929 Du Pont Model G Speedster by Merrimac 42

1939 Bugatti Type 57C Atalante by Gangloff 44

SPOTLIGHT 1957 Jaguar XKSS 46

1927 Rolls-Royce Phantom I Town Car by Hooper 50

1964 Porsche 901 52

1933 Duesenberg SJ Convertible Coupe by Murphy 54

1972 Alpine A110 56

1966 Ford Thunderbird Convertible driven in *Thelma & Louise* (1991) 58

1923 Mercedes 28/95 Targa Florio 60

SPOTLIGHT 1953 Cadillac Series 62 by Ghia 62

1997 GM EV1 66

1976 Stutz d'Italia 68

SPOTLIGHT 1953 Dodge Storm Z-250 by Bertone 70

1964 Brabham BT-8 74

SPOTLIGHT 1989 Batmobile 76

1962 GAZ Chaika Model 13B Convertible 80
1954 Kaiser-Darrin 161 82
1953 Nash-Healey Roadster 84
1979 Hongqi Model CA770 Limousine 86
SPOTLIGHT 1967 Ford GT40 Mark III 88
1948 Davis Divan 92
1937 D8-120 Aérosport Coupe by Letourneur et Marchand 94
1953 Bosley GT Mark I 96
1994 Bugatti EB110 98
2001 Schafer Twin Engine Flathead Dragster "Flathead Jack" 100
SPOTLIGHT 1959 Chevrolet Corvette Italia by Scaglietti 102
1942/46 Lincoln Custom Armored Limousine 106
1918 Ford Model T Coupelet 108
1929 Ruxton Model C Roadster 110
1992 Coddington Aluma Coupe 112
SPOTLIGHT 1922 Leach Model 22A Five-Passenger Touring 114
1931 Ford Model A Station Wagon 118
1991 AAR Eagle HF89 120
1975 Dale Mock-up 122
SPOTLIGHT 1948 Tucker 124
1971 McLaren M8E/F 128
1915 Petite Speciale 130
1941 Cadillac Series 62 Coupe by Don Lee 132

VEHICLES ON LOAN 134

SPOTLIGHT 1947 Ferrari Tipo 125 S 136
2002 Xeno III by Nick Pugh 140
1955 Fuji Cabin 5A 142
1967 Honda N600 144

INTRODUCTION

By Leslie Kendall
Chief Historian
Petersen Automotive Museum

Museums exist to collect, preserve, and interpret. So central are these fundamentals that a museum's very identity is said to lie with the objects it has acquired over time. This is especially true of the Petersen Automotive Museum. Since our opening in 1994, the support and generosity of Margie and Robert E. Petersen and numerous generous private and institutional donors have enabled us to acquire a diverse sampling of important cars, trucks, motorcycles, and other artifacts. Together they offer a glimpse into our rich local automotive heritage and are closely linked with our mission *to explore and present the history of the automobile and its impact on global life and culture using Los Angeles as the prime example.*

An outgrowth of our mission, the unofficial unifying theme of the Petersen Automotive Museum's collections, exhibitions, and education programs has always been "Los Angeles as the capital of car creativity, culture, and consumption," and the vehicles we collect and exhibit all relate to that theme, whether directly or indirectly. More than merely a gathering of personal favorites that reflect the tastes of a few individuals, the collection is a

manifestation of our scholarly selectivity. It is not only entertaining and interesting to examine but also provides us the means to illustrate how far things have come since the beginning of the automobile age and helps us appreciate the exciting changes that modern technologies can bring to our motoring landscape.

Considered as a unit, the methodically grown Petersen Automotive Museum collection has a far greater educational and social value than each car does individually. The collection consists of one of the most wide-ranging samplings of important vehicles ever assembled, and every acquisition contributes to our ability to educate and enlighten the public about how automobiles have shaped Los Angeles and the world and contributed to our shared history. The collection firmly secures our place as a vital community resource and enables us to achieve our ambition to become a globally respected center for automotive research and collecting; the focal point for automotive history, culture, and enthusiasm in America; and a premier educational institution in Los Angeles.

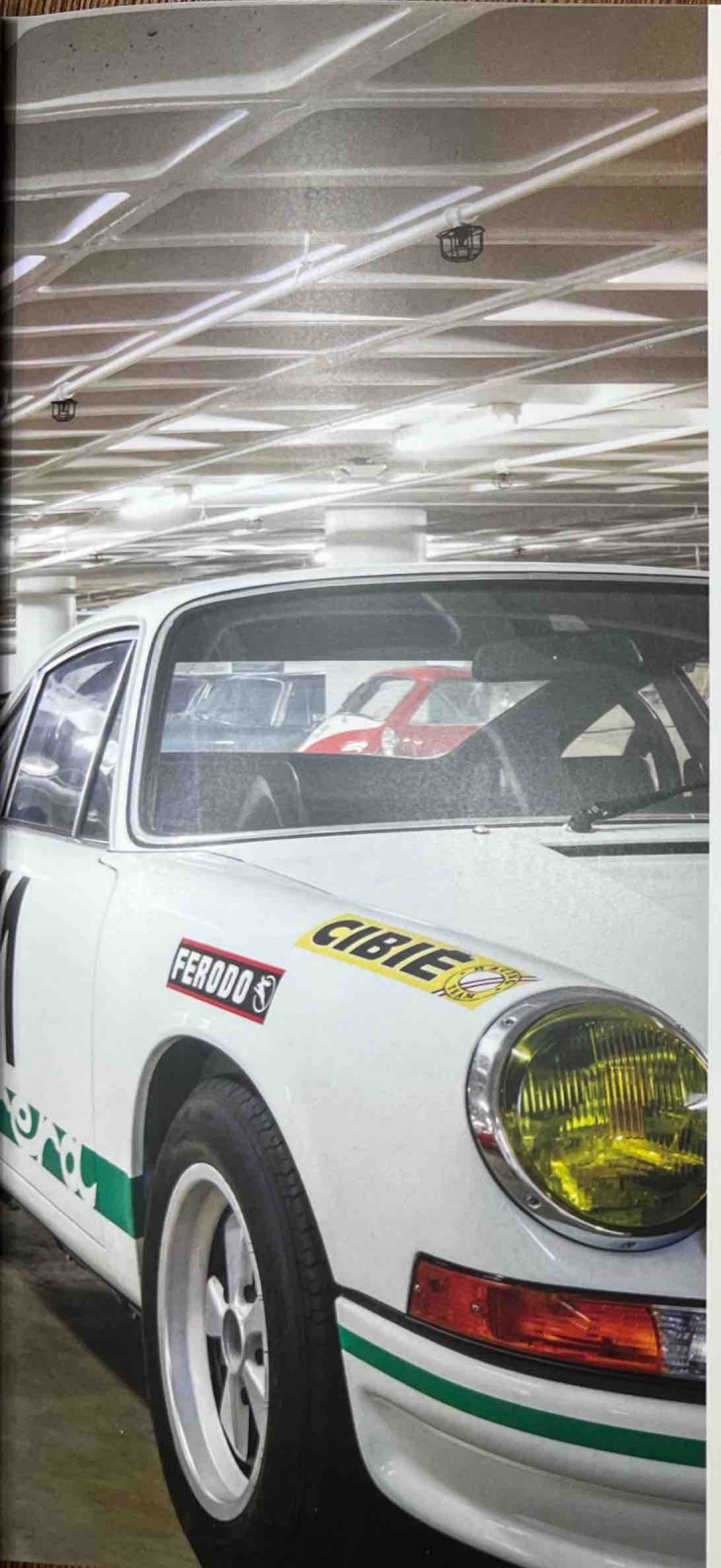
The generosity of our museum friends continues to provide us the resources to enhance our collection and expand our educational programs. As our knowledge about collections objects and the interpretations of the past change, qualified museum staff will continue to re-examine the content of the collection, and our collecting goals will evolve to keep pace. In doing so, our diverse collection will continue to give us the means to offer audiences the kind of panoramic look into our automotive heritage that can be found nowhere else and help our visitors more fully understand what makes Southern California so special: a mild climate, beautiful scenery, and a population with a seemingly innate propensity to shun the ordinary.

"TO EXPLORE AND PRESENT THE HISTORY OF THE AUTOMOBILE AND ITS IMPACT ON GLOBAL LIFE AND CULTURE USING LOS ANGELES AS THE PRIME EXAMPLE"

THE MISSION OF THE PETERSEN AUTOMOTIVE MUSEUM

"HIDDEN AWAY, BENEATH THE PUBLIC GALLERIES AND WELL-TRAVELED SPACES OF THE MUSEUM, ARE THE JEWELS AND RICHES OF ONE OF THE WORLD'S GREATEST AUTOMOBILE COLLECTIONS."

MCKEEL HAGERTY



FOREWORD

There is a special magic to discovering buried treasure. We are told these stories over and over from the time we are small, and we can never seem to get enough–treasure hunters, pirate ships, secret maps, lost islands. These things fire our imaginations and live within us forever.

In truth, part of us is always on the hunt for buried treasure. The Ming vase discovered in your grandmother's attic. The invitation to go backstage to meet your favorite band. The rush of making the secret knock at a speakeasy-style restaurant. Finding a dusty Ferrari in a dilapidated barn. We love to discover what is lost or hidden or gain access to what is usually beyond our reach.

That is the allure of the Vault at the Petersen Automotive Museum. And that's why we at Hagerty wanted to help present these automotive treasures to the world. Inside the Vault you will gain an insider's look into a world that is seldom seen or experienced. Hidden away, beneath the public galleries and well-traveled spaces of the museum, are the jewels and riches of one of the world's greatest automobile collections.

This book offers a sneak peek into the Vault. But the full effect must be experienced in person.
Come see for yourself...
if you dare. Adventure awaits.

McKeel Hagerty
CEO, Hagerty

CUSTOM CO-STAR

1966 Volkswagen Beetle "Herbie" Driven in *Herbie: Fully Loaded* (2005)

With an enviable popularity that spanned its entire production run and continues to this day, the endearing Volkswagen Beetle has long been a cornerstone of pop culture. Its small size, unusual shape, innovative engineering, and affordable price made it a legend in its own time. By 1969 the Beetle had become the best-selling car in the world, and three years later it surpassed the Ford Model T as the best-selling car of all time. Hollywood could not help but take notice and responded accordingly.

Eventually Volkswagens could be seen in the backgrounds of movie scenes and establishing shots before becoming film stars themselves. Buddy Hackett drove a red one across the country in *It's a Mad, Mad, Mad, Mad World* in 1963. Jack Nicholson drove one in *The Shining* (1980), as did Kevin Bacon in *Footloose* (1983). In *Double Trouble* (1967) Elvis Presley participated in an all-Beetle car chase through narrow German streets, and in the 1974 horror flick *The Cars that Ate Paris*, a grizzly looking Beetle covered in needle-sharp spikes loomed a menacing figure.

But the Beetle's most enduring on-screen roles were those in which it was cast as the approachable, disarming protagonist in any number of David versus Goliath scenarios. And the best remembered of them all is the Walt Disney *Love Bug* franchise, in which it played the title role six times. Released in 1968, the first movie was based on the 1961 book *Car, Boy, Girl* by Gordon Buford, which follows the adventures of a car named Herbie that has been endowed with human thought and emotion, as well as special abilities.

Contrary to popular belief, the role was not created specifically for a Volkswagen Beetle; many cars were considered for the role, including Toyotas, Volvos, and a TVR. But it was a pearl-white 1963 Beetle–complete with optional sunroof–that captured the attention of the producers, in part because it was reportedly the only car that the crew wanted to reach out and pet.

But as familiar as the vehicle was, the automaker did not permit Disney to use the name, and therefore the Herbie Volkswagen did not have a VW insignia anywhere on it. In fact, the term "Bug"–though commonly used to refer to the Beetle–was not even trademarked yet by Volkswagen at the time of filming. What Herbie did feature was the racing number "53," chosen by producer Bill Walsh because it was the jersey number of a favorite Los Angeles Dodgers player by the name of Don Drysdale. Wearing red, white, and blue racing stripes also chosen by Walsh, the Volkswagen was perfectly presented, and the film was the third-highest-grossing movie of 1968.

Reporting on the film, *New York Times* critic Vincent Canby attempted to disparage the movie as "a long, sentimental Volkswagen commercial." Volkswagen management must have considered his remark a compliment because subsequent "Herbies" *were* allowed to bear the VW logo. After all, how could an automobile manufacturer turn down an opportunity to expose their product to millions of potential buyers who, it was hoped, would visit their local dealership the

Thirty VW Beetles were used in filming *Herbie: Fully Loaded* (2005), including this NASCAR-themed Bug.

next time they were in the market for a new car.

Building on the success of the first feature film, Herbie graced the big screen again in the 1974 sequel, *Herbie Rides Again,* in which it was treated to updates such as new tires, hubcaps for the wheels, and a new paint job accented by stripes that were both thinner and richer in color than the originals. And while black running boards replaced the white ones specified for the previous movie, the interior remained matte gray, a color that helped prevent reflection from the bright camera lights. In 1977 Herbie took to the screen for the third time in *Herbie Goes to Monte Carlo*, where he participated in a fictional Paris-to-Monte Carlo race, a competition loosely based on the real Monte Carlo Rally. Changes to Herbie for his role in *Monte Carlo* were subtle and included the fitting of pear-shaped mirrors, new wheels, custom high-back seats, and an external fuel filler cap, which served as the secret hiding place for a diamond in the film.

For the 1980 movie *Herbie Goes Bananas*, 23 different 1963 Beetles were used in filming, most of which were demolished during production or modified to such an extent that they were good only for scrap. One was even cast overboard into the sea and never recovered. Then after a 15-year hiatus, Herbie returned to the screen in a 1997 television version of *The Love Bug*, which served as both a remake and a sequel. In this edition, an evil, all-black Beetle named Horace the Hate Bug made an appearance. Horace was also a 1963 Beetle, but sported a fictional arsenal of lasers, a grenade launcher, and tire-slashing equipment. Not wishing to fix something that was not broken, producers wisely resisted the temptation to change the look of Herbie, and modifications to the star Bug were restricted to minor trim and paint variations.

Herbie made his last on-screen appearance in the 2005 Lindsay Lohan feature film *Herbie: Fully Loaded*. In this final film, Herbie's personality became even more pronounced. Thirty separate Beetles were used in production, each with a unique look to suit whatever persona it had to adopt for a given scene. When Herbie street-raced, he sported a new, bright-white paint job, a whale-tail spoiler, air intakes on the fenders, and a lowered suspension. During the demolition derby, he received a paint job featuring two red bullseye targets.

For his NASCAR look, Herbie was festooned with sponsor decals, a new spoiler, and a roll cage. The vehicle in the collection of the Petersen Automotive Museum is a fully engineered, race-ready Herbie that appeared in the NASCAR sequences driven by Lohan as Maggie Peyton. To make sure the race scenes looked as realistic as possible, the Bug was modified for serious track duty and equipped with upgraded suspension, disc brakes, racing slicks, body modifications, and a 2.3-liter, 200-horsepower racing engine that could propel the car to a top speed of 138 miles per hour.

Herbie was not the first vehicle to play a starring role in films and certainly not the last, but it is one of the best examples of why few other movie props have the ability to transform a mundane movie into a memorable one the way a car can. In all, nearly 100 Herbie cars made their appearance in a total of six films, one five-episode television series, and numerous parades, stunt shows, and theme parks, making Herbie one of the most recognizable automobiles in the world, and certainly the most loveable film car in existence. America embraced the Beetle in the 1950s and '60s, but Hollywood made it a star. And who wouldn't like a celebrity who was as loveable off-screen as on, remained untainted by personal scandal for its entire career, and never seemed to age. — *Autumn Nyiri*

1966 Volkswagen Beetle "Herbie" Driven in *Herbie: Fully Loaded* (2005)

WELL ROUNDED

1925/34 Rolls-Royce Phantom I Aerodynamic Coupe by Jonckheere

Thanks to the generosity and foresight of Robert E. Petersen and his wife, Margie, the Petersen Automotive Museum has been able to acquire automobiles that embody the best qualities of their eras. One such vehicle epitomizes the prewar Art Deco school of design and, in its day, won acclaim at automotive beauty contests throughout France. An unlikely combination of extravagant European coachwork on a conservative British chassis, the car was a 1925 Rolls-Royce Phantom I with a body built in 1934 by Jonckheere of Belgium.

Like all other prewar Rolls-Royce motorcars, this Phantom I was delivered new in chassis-only form to a coachbuilder. Hooper & Co. was the chosen body maker and in 1925 the completed vehicle was delivered with cabriolet coachwork to its first owner, Mrs. Hugh Dillman, the former Anna Thompson Dodge who was widowed by her previous husband, automobile pioneer Horace Dodge, leaving her one of the world's wealthiest women.

Unfortunately, Mrs. Dillman reportedly decided not to take delivery of the car, and it appears never to have left England. Still a new car at the time, it was then sold to the Raja of Nanpara who used it in India still with its original cabriolet coachwork. It subsequently passed to an unknown number of other owners and, by 1932, was seen in Belgium. Two years later, its then-owner sent the car to Jonckheere of Belgium to be stripped of its cabriolet body and fitted with fashionably aerodynamic coachwork complete with twin sunroofs, a large fin, sloping radiator shell, and round doors.

Considering the attention-getting designs built on European luxury chassis by coachbuilders such as Saoutchik, Figoni et Falaschi, and Letourneur et Marchand, it was inevitable that a small number of Rolls-Royce owners would want their automobiles clothed in a similar manner. And while the upright radiator was considered sacred by the large majority of buyers, those seeking the utmost in progressive styling experimented with "improving" the front design by covering the standard upright radiator with a sloping grille shell in an attempt to achieve a more aerodynamic profile.

Although the design was controversial and not highly regarded by most Rolls-Royce aficionados, the striking car was well received by concours d'elegance judges of the day and was reported to have taken a Prix d'Honneur at the August 1936 Cannes Concours d'Elegance. The prize-winning car then passed through the hands of several other owners and, immediately before World War II, was observed in Bar Harbor, Maine, being driven by a chauffeur who was supposedly so obese that he could not get out of the car to help his employer to disembark. Sadly, the car fell into disrepair and was discovered in New Jersey in the early 1950s in near derelict condition.

It is not known who rescued the car from being scrapped, but East Coast entrepreneur Max Obie eventually acquired the unusual Rolls-Royce and refurbished it. He had it painted gold, claiming to have added several pounds of gold dust to the paint to maximize the car's visual impact, then perpetuated rumors that the Round Door Rolls was once owned by King Edward VIII, later the Duke of Windsor. But despite the lack of proof that the car was ever owned by a member of the British royal family, the story made excellent press.

The publicity was appreciated by Obie, who traveled the car to shopping centers and other public areas, charging the curious one dollar each to enter an enclosure to look at it. The Phantom I remained on the East Coast of the United States (later to be painted an unflattering off-white), then was sold to Japan before coming into the possession of the Petersen Automotive Museum in the spring of 2001.

Desiring to return this dramatic Rolls-Royce to concours-winning splendor, Mr. Petersen made the decision to perform a ground-up restoration. A thorough inspection of certain components and countless hours of painstaking research revealed that well-meaning, but careless, former owners had taken a number of liberties when renovating the car. In order to reverse this damage, virtually every component was removed, checked for wear and authenticity, then reconditioned or replaced as needed.

During the body-preparation process, small amounts of both metallic gold and robin's-egg blue paint were discovered, but the original color could not be identified. As a result, the obviously incorrect "appliance white" paint was stripped and the car sprayed black to highlight its subtle contours and striking profile. Since the car was originally delivered

Originally bodied as a cabriolet in 1925, the Round Door Rolls-Royce was rebodied in period to its current dramatic configuration.

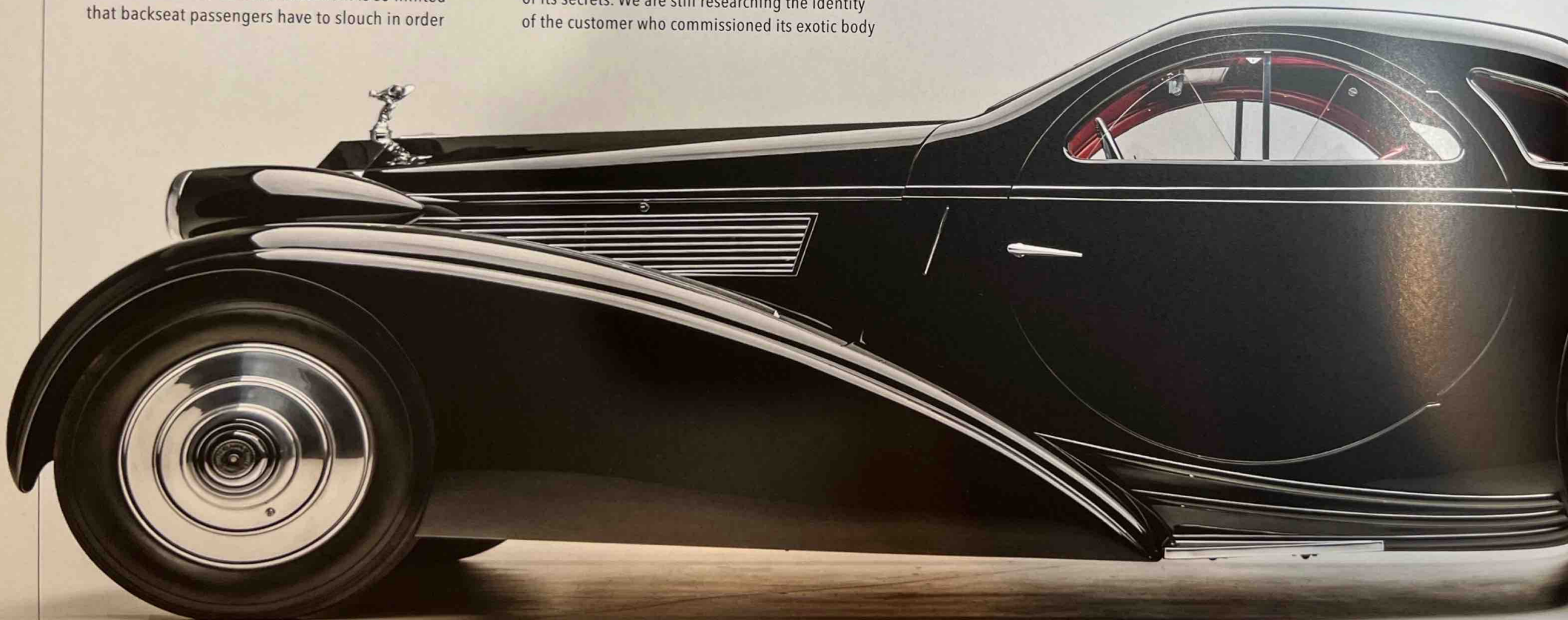
in 1925, it was not surprising to discover that most chassis and drivetrain components were mid-1920s vintage. And since the body was constructed in 1934, most of the gauges and interior fittings were found to be from the mid-1930s as expected.

Like any other Phantom I, the Round Door Rolls-Royce requires a great deal of driver involvement when underway, thanks in part to its 6,100-pound weight and length approaching 20 feet. It is difficult to steer at slow speeds, requires double-clutching when changing gears, and cannot be stopped easily in an emergency. While fashionably low, the lack of ground clearance virtually assures that the extended rear deck will scrape the ground if a driver does not approach curbs and speed bumps slowly and at the proper angle. The car's high seating position gives front seat occupants a commanding view of the road, but rear headroom is so limited that backseat passengers have to slouch in order to avoid coming into contact with the headliner. Fortunately, tall front seat passengers each have their own sunroof, one or both of which can be opened for sunshine, ventilation, and head room.

But driver comfort and passenger ergonomics are not why the Round Door Rolls was constructed. It was built to make a statement; to win awards at European concours and to elicit admiring glances from pedestrians and other motorists. It achieves this purpose so well that most people who notice the car immediately stop walking to watch it go by. These pedestrians–and virtually every motorist who encounters the vehicle on the road–inevitably look inside in an attempt to identify the lucky owner.

Long one of the best-known and most popular cars in the Petersen Automotive Museum collection, the Round Door Rolls-Royce has yet to give up all of its secrets. We are still researching the identity of the customer who commissioned its exotic body

"IT WAS BUILT TO MAKE A STATEMENT; TO WIN AWARDS AT EUROPEAN CONCOURS AND TO ELICIT ADMIRING GLANCES ..."



Viewed in profile, the sloping rear aspect and tail fin hearken to the Art Deco aesthetic prevalent during the mid-1930s.

and why they chose a coachbuilder who at the time had already begun to specialize in bus and coach bodies. And, while we know it has spent some time with different owners on the East Coast, we have yet to discover the identity of each of them. It is difficult to imagine that such a flamboyant car could have fallen off the collective radar of the entire historic car enthusiast community, but understandable when one realizes that by the time it was 25 years old, the most desirable cars of the era had fins, V-8 engines, power accessories, and a silhouette that was sleek and low. There could have been nothing more obsolete than an aging concours queen well past her prime.

The Round Door Rolls has literally traveled a rough road and the Petersen Automotive Museum is proud to have returned it to its original luster. Other cars have had round doors. Still other automobiles have had large fins and louvers in the back. And more than one other prewar Rolls-Royce has been delivered with a concealed grille. But no car has combined all of these features into such a graceful, unified work of sculpture. And while its exotic coachwork is still not embraced by many Rolls-Royce aficionados, the car provokes reactions that substantiate a truth that Southern Californians came to terms with long ago: cars serve as another layer of clothing, and what we choose to drive speaks volumes about our personalities. — *Leslie Kendall*

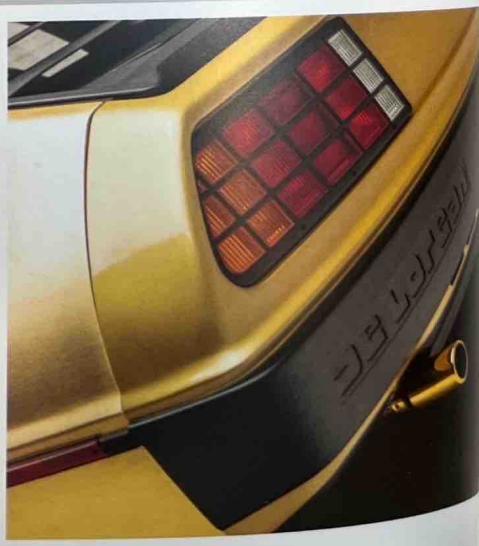
1925/34 Rolls-Royce Phantom I Aerodynamic Coupe by Jonckheere

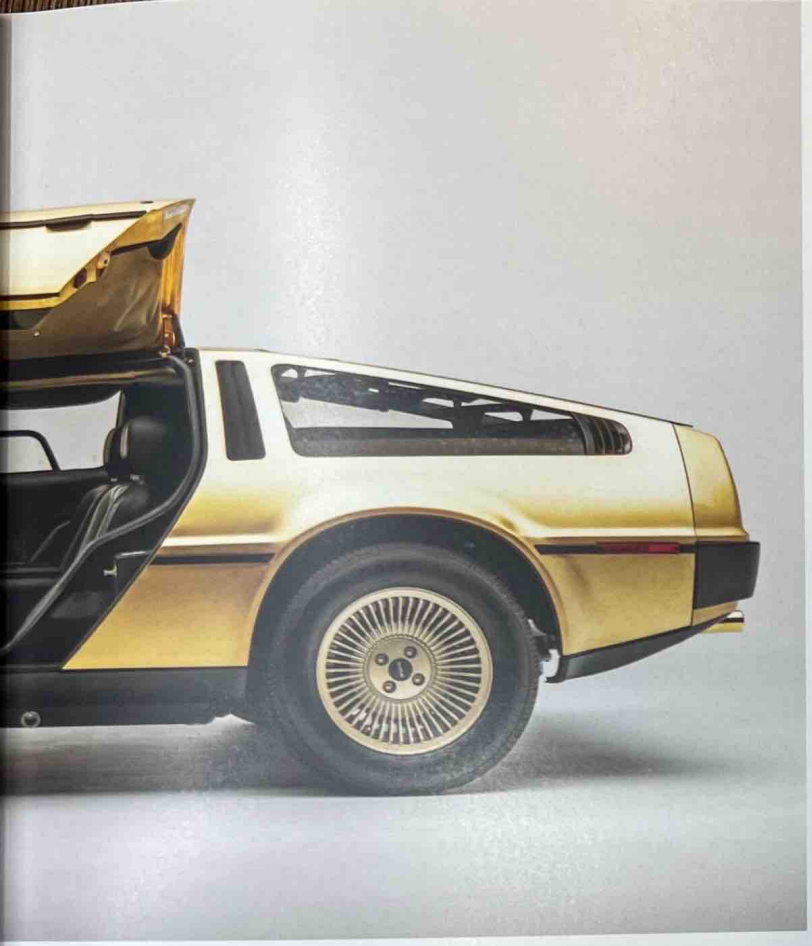
GOLDEN GULL-WING

1981 DeLorean DMC-12 Coupe

Automotive history is chock full of stories portraying enterprising, daring, and rebellious entrepreneurs who have set out to challenge industry stalwarts. The Petersen Museum's collection of automobiles contains one of the most diverse samplings of such vehicles. From those built by prewar upstarts like the Smith brothers, G.M. Kennedy, and Martin Leach, to those built by postwar dreamers like Henry J. Kaiser, Gary Davis, and Preston Tucker, these vehicles represent courageous attempts by determined entrepreneurs to compete against the titans of Detroit. Others came and went, but by the 1970s, one of the best known entrepreneurs of all time had conceived a vehicle that would come to personify a spirit of innovation that had launched an industry almost a century earlier, John Zachary DeLorean.

Founded by DeLorean, a former General Motors executive, the DeLorean Motor Car Company was brought into being by an experienced automobile executive with an impressive resume. DeLorean had worked at Chrysler, Packard, and General Motors, and the Pontiac Tempest he designed while working at General Motors earned *Motor Trend*'s coveted "Car of the Year" award in 1961. Yet, tiring of the conservative General Motors corporate culture, DeLorean resigned his executive position in 1972 and set out to create a sports car–and build a company to manufacture it–that could better the best





In 1980 the DeLorean Motor Car Company partnered with American Express to offer a limited run of 24-karat-gold-plated DMC-12s.

from around the world. The car was to be DeLorean's statement against General Motors and what he considered to be its immoral business practices.

In symbolic contrast to GM's offerings, DeLorean's new car was to be an "ethical" sports car. Safety features like air bags would ensure that it was also socially responsible, and a $10,500 price tag would make it affordable to the "common man." And it was to be produced in Northern Ireland, a region of the world where the employment opportunities it would offer could reduce crime and poverty. Construction of the factory began in 1975, and top company executives were chosen in large part based on their previous experience at one of Detroit's "Big Three": General Motors, Ford, and Chrysler. The car was named the DMC-12 and was in production by July 1980, approximately ten years after DeLorean first announced plans to build it.

Since he was creating his car from scratch, DeLorean had the opportunity to enlist some of the most talented engineers and automotive stylists in the industry. Lotus founder Colin Chapman, for example, designed the chassis, which was made using a process called Elastic Reservoir Molding (ERM) and then coated with epoxy to reduce corrosion. Styling was entrusted to notable Italian designer Giorgetto Giugiaro, who had worked at the Italian design houses of Bertone and Ghia before forming his own firm called Italdesign in 1967. A modified 2.8-liter Peugeot-Renault-Volvo six-cylinder engine powered the car, and it was designed with gull-wing doors that gave it the kind of sex appeal other sports car manufacturers could only dream about. It was sporty, stylish, and flamboyant–just like its creator. But the DeLorean's most unique feature was undoubtedly its stainless steel finish. Though the material cost nearly eight times as much as standard steel, DeLorean chose it because of its high resistance to corrosion and its ability to offer the kind of durability associated with DeLorean's "ethical" car concept. The stainless-steel finish would also give the DMC-12 a distinct look. A small number of cars were painted in a variety of colors by their owners, but paint did not readily adhere to the surface because of the chemical properties of its finish. Referencing a quote by Henry Ford, DeLorean said of his new sports car that "you can have any color you want, as long as it's stainless."

There were, however, a very small number of DeLoreans that were presented in a different–and far less utilitarian–finish. In 1980, shortly before the DMC-12 was introduced, DeLorean partnered with American Express to advertise the banking company's new Gold Card. As part of the promotion, DeLorean was to manufacture DMC-12 coupes with their brushed stainless-steel finishes plated in 24-karat gold. It seemed like the perfect marketing move because, not only did the finish match the color of the American Express Gold Card, its cultural associations with wealth and status would make a prominent visual statement in advertisements and, if any were sold, it would ensure maximum visibility for both DeLorean and American Express, not to mention the lucky owner.

The gold-plated DeLorean made its first appearance on the cover of the American Express 1980 Christmas catalog. It was advertised as the "most luxurious car in the world" and touted as the "gold at the end of the rainbow." Adding to the car's mystique, the catalog listed the car for sale at an exorbitant price of $85,000. Though a limited production run of only 100 gold DeLoreans would be sold as part of the promotion, the coupe's starring role in the American Express catalog also brought the basic stainless-steel DMC-12 to the attention of customers who could potentially afford a price that had by that time risen to a stout $26,000.

The campaign also had distinct benefits for American Express. By associating themselves with an independent and enterprising figure like John DeLorean and the car he was building, American Express could market their products to established professionals, trendsetters, and "Yuppies," a notoriously fickle demographic that placed a high value on independent thinking. (Yuppies were affluent and did not hesitate in spending their money conspicuously, making them one of the most targeted markets of the decade.)

In total, only two gold DeLoreans out of the planned 100 were originally sold, although a third was later built from spare parts on hand. One of the two originals, the example in the Petersen Automotive Museum collection, was purchased by the president of a Texas bank and displayed in the bank's lobby in a glass case from the time it was purchased in 1981 until it was donated to the Museum in 2003 with a mere seven miles on the odometer. To preserve the car's pristine bodywork and overall mechanical condition, it has never been started or subjected to the rigors of road use.

Ultimately, even the workaday stainless-steel DMC-12 proved too expensive to sell in profitable quantities, and production was halted after only about 8,500 were built. Nonetheless, with its starring role in the American Express promotion, the 24-karat-gold-plated DeLorean remains an important landmark in the history of automobile manufacturing. — *Kristin Feay*

1981 DeLorean DMC-12 Coupe

1979 Volkswagen Transporter Driven in *Little Miss Sunshine* (2006)

ROADTRIPPER

In the 2006 film *Little Miss Sunshine*, the dysfunctional Hoover family embarks on a road trip from New Mexico to California. During the journey, their vehicle is plagued by mechanical difficulties; a bad transmission, a detached side door, and a malfunctioning horn—all real-life problems suffered by the film's screenwriter, Michael Arndt, on one of his own family trips in a similar vehicle. It was the perfect example of art imitating life, and the vehicle chosen to help keep it real was a 1979 Volkswagen Transporter.

The Volkswagen Transporter, also known as the Type 2, was the second model ever offered by Volkswagen, following the successful Type 1, or Beetle as it would come to be known. Ben Pon, the Dutch Volkswagen importer, sketched his idea for the new type of vehicle in 1947 after seeing a flatbed parts-hauler built up from a Beetle chassis while visiting the Volkswagen plant in Wolfsburg, Germany. The German car manufacturer saw potential in Pon's design, and eight prototypes were built in 1949. As Pon predicted, the prototypes proved how adaptable a rear-engine platform could be thanks to its inherent compactness.

But while the layout of the standard Beetle floor pan was ideal for a new van, the existing chassis was not robust enough to handle the combined weight of the new, larger body and the heavy loads the vehicle would be expected to haul. To address any potential structural issues, a sturdy new frame consisting of two steel longitudinal beams connected by steel cross beams was created. The steel floors in the cab and load area were welded directly to the frame, resulting in a unit that was solid and strong, even when overloaded.

As ingeniously configured as it was well built, the Transporter featured a "cab-over" driver's compartment, with no hood extending forward of the windshield, a layout that placed the driver directly above the front axle. The design allowed for an outstanding view of the road immediately in front of the vehicle, even as it provided for a vast area behind the front bench seat to accommodate passengers or cargo. And the family resemblance imparted by the designers ensured that it would be instantly recognized. It was, after all, a genuine Volkswagen, complete with a rear-mounted, air-cooled, flat-four engine; four-wheel independent suspension; and 95-inch wheelbase.

The boxy new Transporter officially debuted in the spring of 1950, later to be joined by panel vans and trucks based on the bus platform, all of which were adapted for commercial or military use by businesses and governments around the world. There had been plenty of small European van-like vehicles before, but no manufacturer had ever offered one as efficiently packaged, as reliable, as inexpensive, as rugged, or as simple to operate and repair. It proved to be exactly what consumers had been waiting for, and more than a decade would pass before any serious competitor would

In *Little Miss Sunshine* (2006), the canary yellow VW Transporter, or Type 2, was as much a character as any of the human actors in the film.

appear. But there is always room for improvement.

As Transporters rolled off the assembly line in Wolfsburg, a number of upgrades were made over the course of several years to expand the model's marketability. A 1951 Micro-Bus Deluxe model featured several small, skylight windows along both sides of the roof and an expansive sunroof between them that extended most of the length of the vehicle. In the years that followed, the Transporter body was made structurally stronger and a rear bumper became standard equipment. In 1954 the horsepower rating was increased from 25 to 30, then incrementally over the next dozen years to 53 in 1966. Also in 1954, the 100,000th Transporter produced was celebrated at the factory, a milestone for which the special vehicle was bedecked with flowers as it came off the line–a harbinger of the "flower child" days to come.

Through 1954 the Transporter was fitted with one rear hatch that extended from immediately below the rear window–which was fixed and did not open–down to the bottom of the body. These models were called "Barn Door" Volkswagens because of the unusually large size of the hinged engine access panel that was thought necessary to allow for storage of the spare tire, which at first was mounted horizontally on a metal tray above the engine. The year 1955 marked the replacement of the "barn door" with two hatches, a top hatch that extended from the roofline downward to just above the engine for easy rear loading of the cargo area, and the bottom door accessing the engine compartment, which was redesigned to share space with the spare tire.

In 1956 production of the Transporter was relocated to a new factory in Hanover, Germany, where 200 vehicles a day rolled off the assembly line. And while it was updated through the years, the basic body configuration and styling was so well liked by consumers that the changes were primarily cosmetic, with a variety of window configurations, alterations to the bumpers, head- and tail lights, and changes to the dashboard and other internal components.

The VW Transporter first made its way to the United States in 1952. Only ten vehicles were sold countrywide that year, but the boom was to come. In 1956 the Westfalia camper model was introduced to America in an effort to appeal to outdoor lovers. By 1958 the number of Transporters imported per year had increased to over 25,000, creating a temporary glut that was mitigated with a smart advertising campaign conceived by the Mathes agency in New York. The strategy was a success, and soon people found themselves on waiting lists to obtain the quirky vehicle. But the pitch that worked best of all was the "Think Small" campaign conceived by Doyle-Dane-Bernbach, which, instead of attempting to glamorize the Volkswagen, poked gentle fun at the entire model line, including the Transporter.

With its basic interior, rubber floor mats, and removable seats, the car was perfectly suited for beach life, and the Microbus was soon being seen in coastal regions toting surfboards, both inside the cavernous cargo area and on the roof. But the group that became most closely associated with the Microbus was the counterculture set of the late 1960s and early 1970s. Its boxy appearance, so unlike anything the automobile manufacturers in Detroit were producing, was a major draw for those who wanted to stand out from the crowd. The humble, low-power Transporter was a favorite of marginalized members of society, who could use the versatile vehicle as rolling art canvases, billboards for political messages, or transport for protesters to rallies during the cultural upheaval of the 1960s.

In 1968 the VW Transporter was redesigned to eliminate the pronounced "V"-shaped front trim, but its combination of simple design, extreme adaptability, and flower-power spirit remained intact. And while the last second-series Transporter was produced on December 20, 2013, the model survives in the hearts of millions as a beloved cultural icon as well loved as the Beetle that gave it its start. Other Volkswagen vans may have come and gone–including a model derived from a Chrysler minivan–but the first two series will likely remain the best loved. And not only by consumers. When Hollywood needed just the right vehicle to establish the personalities of an entire roster of film characters for the movie *Little Miss Sunshine*, their choice was obvious. It simply had to be a VW Transporter. – *AN*

1979 Volkswagen Transporter Driven in *Little Miss Sunshine* (2006)

HUMBLE BEGINNINGS

1903 Cadillac Model A Runabout

The Cadillac Automobile Company was born in 1902 out of the remnants of the Henry Ford Company, Henry Ford's second unsuccessful attempt to establish an automobile manufacturing enterprise. Following a dispute that saw Ford leave the company in March of 1902, Ford financial backers William Murphy and Lemuel Bowen brought in Henry Martyn Leland, the founder, vice president, and general manager of Leland & Faulconer Manufacturing Company, to appraise the plant and equipment in preparation for liquidating the company's assets.

Leland, who had briefly met Ford at an exhibition of automobiles in 1901, had by then created an

engine of his own. A single-cylinder powerhouse nicknamed "Little Hercules," Leland's engine was fundamentally an improved version of the engine created by Olds Motor Vehicle Company founder Ransom E. Olds. Improvements over the Oldsmobile design included enlarged intake and exhaust passages and ports, increased valve diameters, and a reconfigured cam. The result was an engine that ran at 900 rpm and developed 10.25 horsepower, approximately three times that of the Oldsmobile engine. Believing that his changes would be appreciated by Olds, Leland had offered the "souped up" engine back to the Olds Company, but it was rejected on the grounds that it would be too costly and time consuming to retool in order to build a chassis to handle the increased power of the engine.

Disappointed, but not discouraged, Leland decided to build an entirely new car around the engine, which he showed to former Ford backers Murphy and Bowen during the time he was assisting with the appraisal of the now-defunct Henry Ford Company's assets. Touting its reliability, power, and the fact that its parts were interchangeable, Leland ultimately convinced the two men of the viability of his engine and persuaded them to continue their backing of the company instead of liquidating it. Leland was given what proved to be a leading role in the further development of his new car.

Renamed the Cadillac Automobile Company after its reorganization in August of 1902, the firm continued to operate out of the Henry Ford Company's former factory at Cass Street and Amsterdam Avenue. Leland was inspired to name his car "Cadillac" after the founder of the city of Detroit, Antoine Laumet de La Mothe, sieur de Cadillac, a French explorer and adventurer. The company's crest–a many-quartered shield surmounted by a seven-spiked coronet and garlanded with a laurel wreath–was modeled on Laumet's coat of arms.

To manufacture the car, the new Cadillac Company would build the chassis and bodies, and the pre-existing Leland & Faulconer Manufacturing firm would produce the engines, transmissions, and steering gears. Coordinated under Leland's supervision, Cadillac production involved a level of precision that was

Built during the first year of Cadillac production, this 1903 Runabout offers a minimum of contrast to the horse-drawn carriages of the day.

rigorously maintained from the very beginning of the company. Leland designed a set of "go/no go" limit gauges to test part tolerances and had pistons and cylinders machined, measured, and carefully matched to ensure smoothness and reliability of operation. Any component determined not to be built to spec was either re-machined or thrown away. This standardization of parts meant that if a Cadillac owner ever had to replace a component, it would be guaranteed to fit. Work on the first Cadillac began in September of 1902, and a complete car was ready by mid-October. Interestingly, the outward appearance of both the 1903 Ford and 1903 Cadillac were virtually identical, the reason for which has been the subject of much debate, but likely a coincidence brought about by a source of inspiration shared by the two pioneers.

The first three Cadillacs completed by Leland & Faulconer were displayed at the New York Auto Show in January 1903. Proving the confidence that consumers had in the new make of car, all three vehicles sold at the show and orders were taken for an additional 2,286, each of which came with a deposit of ten dollars. First known as the "Cadillac Runabout," the designation "Model A" was not originally used to refer to the 1903 vehicles and was only applied to them after the development of a new model debuted in 1904, which was dubbed the Model B to distinguish it from the earlier cars. The selling price for this lightweight two-seater was $750.

Because one- and two-cylinder vehicles of the early 1900s were normally not powerful enough to propel a long–and thereby heavy–chassis, vehicles like the earliest Cadillacs were typically delivered with two-place coachwork. To double the passenger carrying capacity, a detachable rear-entrance tonneau was optionally available for an additional $100. Deriving its name from the location at which passengers entered the back seating area, the body from behind consisted of two outer sections that wrapped around the rear corners of the car to establish the contours of the curved backseat cushions while the center section was a hinged door that opened for access to the rear compartment. Whether equipped with a rear-entrance tonneau or not, the entire body was bolted to the chassis and could be lifted off for service without removing or disconnecting any plumbing or wiring. A total of 2,497 were built during the first year of production.

To the satisfaction and delight of Henry Leland, Cadillac rapidly earned a reputation for reliability and ease of maintenance thanks to how meticulously the parts were machined in order to achieve a reliable level of standardization. The Runabout also demonstrated excellent performance and possessed a remarkable ability for climbing and pulling. Shortly after the cars began production, a UK importer named F.S. Bennett entered the car in the Sunrising Hill Climb, in which it was the only single-cylinder car to finish the race. In the 1,000 Miles Reliability Trial, it came in first in its price class when scored for reliability. Feats such as this contributed to Cadillac's reputation as one of the most storied marques in the automotive universe, famous for building the cars that carried the world's richest, most powerful, and most famous individuals. — *AN*

BOY WONDER

1932 Ford "Ray Brown Roadster"

With an average high temperature of nearly 100 degrees and an average annual rainfall of less than six inches, salt flats and dry lakes do not seem like ideal venues for pleasurable cruising. Nevertheless, these geographical features, unique to western states like California, Nevada, and Utah, played a distinct role in the history of vehicle modification. With large open areas, relatively smooth surfaces, and great distances from populous areas, they were ideal locations for unofficial speed contests. Here, racers could test their cars' capabilities on a surface relatively free of obstructions and the threat of speeding tickets.

Intrepid drivers and builders began racing modified cars on the dry lake beds outside of Los Angeles during the 1920s and 1930s. These racers embraced the blistered white plains of El Mirage, Muroc, and Rosamond dry lakes as locations where they could test their cars' performance against one another in acceleration and top-speed runs and, eventually, style. Competitions held at these informal drag strips contributed to the rise of specially modified vehicles, known first as "gow jobs" and later as "hot rods." And although these vehicles varied greatly in appearance because of how they were personalized, a few standard configurations would inevitably emerge.

During the Great Depression, those who desired the performance of an expensive Packard, Duesenberg, Lincoln, or Cadillac, but could not afford one, turned to the humble, mass-produced Ford Model T, which they would transform into capable performance cars using off-the-shelf parts purchased at early speed shops or directly from manufacturers. Second-hand Model Ts were readily available and very affordable and spawned an entire specialty equipment market catering to enthusiasts who wanted to develop their cars into winning track stars, beginning with an engine that embodied all of the speed tricks they could conjure.

After World War II, hot rodding became increasingly popular, and a new generation of "hot rodders" began to race their modified vehicles on the dry lakes in Southern California. But to the chagrin of law enforcement and other motorists, they also took their impromptu races to the streets and parking lots. Seeking credibility and respectability, organizations like the National Hot Rod Association (formed in 1951) and local car clubs like the Roadrunners and Sidewinders held organized meets on airport runways throughout Southern California during which responsible driving was promoted, like *Hot Rod* magazine did in 1954 with their Safety Safari.

Many Ford Model T aficionados soon came to realize that the limits of their vehicles' performance had been reached, and they turned their attention to a new vehicle, the 1928 through 1931 Ford Model A. But some of the best-remembered hot rods of all were based on the 1932 Ford, which offered even more performance potential than either the Model T or Model A. As used cars they were cheap and available, and ultimately a large number of entrepreneurial tinkerers developed bolt-on "speed equipment" to boost their engine performance. The wide open roadster was especially appreciated because of its light weight, rakish appearance, and aggressive stance.

The 1932 Ford was also special in another way: it was equipped with a V-8 engine with great performance potential. And while the V-8 cylinder configuration was not new, it was the first to be offered at a price that made it accessible to the general public. Hedging its bets, Ford continued to offer a traditional four-cylinder version alongside the V-8, which made

Discovered in a garage in 1991, the "Ray Brown Roadster" has since been returned to its original custom configuration.

the attractive new car desirable even if performance was not on a par with its V-8 stablemate. But regardless of the engine, the 1932 Ford was a far better choice for hot rodders than the Fords that came before it.

It had a more rigid chassis to cope with the additional power of the stock engine and an all-metal body that was more durable than that of its predecessors because it did not use wood as an internal structural component. It was the perfect starting point for customs that were as attractive on the outside as they were technically inventive on the inside.

Styled by Henry Ford's son Edsel and the Ford design department, the 1932 roadster featured graceful curving lines, a compact profile, and a racy silhouette even without body modifications. But once the fenders, windshield, and other non-essential parts were removed, it took on an even more purposeful silhouette that became a hallmark of the American hot rod. And while there were many variations on the theme, the typical procedure for creating a hot rod out of a 1932 Ford began with stripping any protruding parts like fenders, bumpers, and door handles; fitting it with beefier brakes and transmissions from other cars; and equipping it with large rear wheels and tires. Though any color was theoretically available, the most common were red and black with either a beige or red interior.

The ease with which one could customize a 1932 Ford made it especially desirable because it could be so easily transformed into a rolling personal statement. By removing badges, trim, and other recognizable features from the 1932 Ford, hot rodders gave them a highly personal look that instantly distinguished them from their mass-produced counterparts. Many were so creatively personalized that they were known in part by the names of their builders or most important associations. Some of the most popular were the Moomjean Roadster (named after the racing shop that built it), the Elvis Car (named for its starring role in the 1957 movie *Loving You*), and the McGee Coupe (named after former serviceman Bob McGee). But the "Ray Brown Roadster" may be one of the most interesting of all.

In 1945 16-year-old Ray Brown began work on his 1932 Ford roadster. Brown used both the knowledge and the parts he got while working for Eddie Meyer's speed shop to turn his roadster into a high-performance hot rod. The "Eddie Meyer" badge on the side of the car's hood even proclaimed the connection. The roadster sported Eddie Meyer heads, an Eddie Meyer intake manifold, and a Winfield camshaft. For extra power on demand, Brown also installed a two-gallon tank in the trunk for alcohol fuel and a parallel fuel delivery system so that he could convert his roadster to run on alcohol fuel in a race for a kind of "flexible fuel" capability. To finish the roadster, Brown painted it an unexpected "Sherwood Green," a color available on that most unexpected of upscale cars, the 1946 Buick.

Brown considered the car a dual-purpose roadster and used it during the week to go to work and on the weekends to race. He campaigned it successfully on the dry lakes in 1946 and 1947, then sold it in 1948. It remained in dry storage until 1991, the year it was discovered in untouched original condition, complete with the eleven timing tags it earned during its brief but successful career. A meticulous ground-up restoration returned the roadster to its original racing configuration, and to this day its unique color and unusual louver pattern on the hood sides make it easy to spot. It has won AACA Junior and Senior awards and was the recipient of the 1994 AACA "Past Presidents' Award," the highest honor a competition car can receive. But perhaps its most important appearance was at the Pebble Beach Concours d'Elegance in 1997, the first year that the world-renowned Concours allowed hot rods to share the field with Duesenbergs, Packards, and Pierce-Arrows—vehicles with which it would have shared the road even as a brand new car. — *KF*

TRUSTY MUTT

1959 Balchowsky Ol' Yaller Mark III

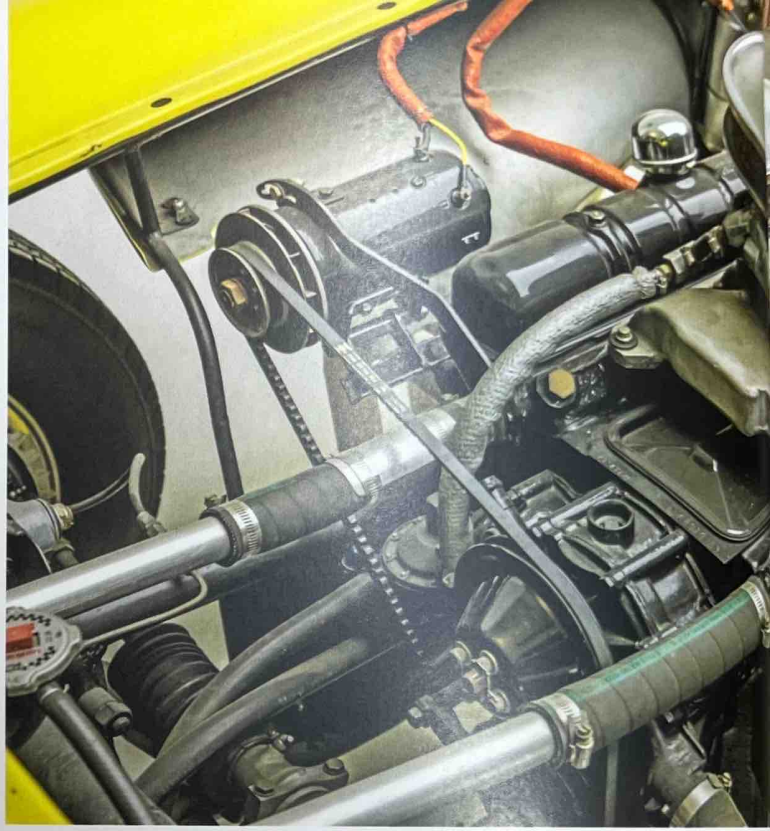
During the 1950s, the California motoring landscape was full of cars that represented a wider range of automotive tastes and preferences than virtually anywhere else in the world. In stark contrast, racing venues such as paved tracks, airport runways, and the dry lakes were populated with vehicles that could normally be narrowed down to just two general categories: hot rods and sports cars. And even though the goal to win against the competition was shared by both vehicle types, their approaches to doing so could not have been more different. Those differences were most apparent in their methods of ensuring that they had the best possible engine for the job.

In local garages and at gas stations, hot rodders spent much of their free time "hopping up" inexpensive used cars by installing as much speed equipment as their budgets would allow, while sports car racers drove their mostly stock–and vastly more expensive–European imports in sanctioned road-racing events. And while the large majority of the cars represented by these two extremes were so specialized that they were rarely seen competing against each other in the same races, the line between them was occasionally blurred by hot rod aficionados who sometimes wanted to test their cars on winding racecourses packed with other drivers, and by sports car owners who wanted to test the straight line performance of their vehicles against only the clock.

It was not just their approach to competition driving that set them apart; the public perception of those who participated in each of these two activities was also very different. Hot rodders were seen as rebellious lawbreakers, while sports car racers were perceived as genteel sophisticates who were simply building on the tradition established by marque-based car clubs organized before the war. But while hot rod builders and sports car owners approached motorsport in very different ways, and with very different machines, their best qualities sometimes overlapped in unusually talented individuals who broke new ground in both disciplines. In the early 1950s, car builder and engineer Max Balchowsky was one such innovator who, together with his wife, Ina, demonstrated that the two approaches could indeed be compatible through the application of creativity and engineering expertise.

Balchowsky grew up in rural West Virginia. He had early experience with mechanical work, getting his first job at age 12 in a bicycle shop where he built frames and wheels and laced wire-spoke rims. His mechanical skill was apparent from the start, and his fellow technicians were impressed with the speed at which he could complete the tasks assigned to him by the store's owner. Balchowsky later left the bicycle trade and, anxious to avoid the coal mining business that employed many young men in the West Virginia area, hitchhiked to Florida to pursue employment opportunities in the agricultural vehicle and farm implement repair business. But repairing heavy equipment was not to his liking, and he moved yet again. This time he journeyed north to New York, where he found an opportunity to train in a field that, while still mechanically oriented, could not have been more different than repairing tractors–watchmaking.

In 1943 Balchowsky joined the army where he continued to demonstrate his mechanical aptitude by performing vehicle repairs. It was the perfect balance between the muscling of heavy equipment and the delicate art of wielding watchmaking implements that he had been looking for. After the war, Balchowsky



moved to California, where he got a rapid and intensive introduction to Southern California hot rod culture while working in his brother "Bal's" shop. Desiring to pursue his own dream of a career in automobile engineering, Balchowsky, together with his wife, established a garage he called Hollywood Motors in 1952. There the husband and wife team gained considerable respect building engines for hot rods and racing cars, and swapping one engine for another in a variety of vehicles. But modifying existing cars did not offer the personal satisfaction of having complete control of a project, and Max moved on from repairing and replacing the components of existing cars to scratch-building those of his own design beginning in 1957. These cars, which often utilized second-hand parts, were appropriately known as the "Ol' Yallers," a pointed reference to the cars' origins as "junkyard dogs."

As the Ford design department discovered in 1952 when polling their constituents in anticipation of producing the Thunderbird, most "sports car" owners never raced their performance vehicles. Whether imported or domestic, sports cars in America were often valued more for their physical appearance than they were for their performance. But Balchowsky saw no reason to compromise a good engineering design for the sake of aesthetics, and while his home-grown Ol' Yallers were often regarded as crude and unattractive, he was able to extract a great deal of performance out of them at the least possible expense. Unlike the established marques against which his cars competed–and even those of certain adventurous hot rodders–Balchowsky did not regard his cars as completed products, but as prototypes that were intended to gather data for his next masterwork.

This philosophy of ongoing innovation would ultimately lead Balchowsky to create nine Ol' Yaller cars, each to a design that embodied incremental improvements over the one that preceded it. And the tinkering continued even onto the paddocks of Southern California road-racing venues, where the vehicles were not only repaired between heats but revised whenever practical. And while traditional racers were accompanied by entire entourages of assistants and truckloads of supplies, Balchowsky and Ina would show up on race day with only their golden retriever, Ted, a small number of picnic accoutrements, and a few basic tools. To the bewilderment of those who raced wildly expensive European sports cars, Balchowsky's humble Ol' Yallers performed very well on the track. Carroll Shelby himself even claimed victory in the 1960 USAC Road Racing Championship with Ol' Yaller Mark II.

Beginning as a chalk drawing on the floor of Balchowksy's Hollywood garage, Ol' Yaller Mark III was an evolution of Ol' Yaller Mark II. And like the two Ol' Yallers that preceded it, this third vehicle in the series was simply constructed, unrefined in appearance, and painted a bright shade of yellow. But the car's lightweight, aluminum tube chassis and powerful engine made up for its lack of aerodynamic efficiency on American road-racing tracks. (Balchowsky correctly reasoned that aerodynamic efficiency did not have to be figured into the equation, because most American road-racing tracks did not allow cars to reach speeds of over 70 miles per hour, the velocity above which streamlining would have made a difference.)

With his Ol' Yaller cars, Balchowsky proved that homegrown hot-rod engineering could yield vehicles whose success on the track belied their humble origins. And in a world characterized by prestige, affluence, and finely crafted aesthetics, they offered a unique synthesis of American car customization and European specialty manufacturing in a package that was as much folk art as it was transportation. Built for noted Hollywood cinematographer Harold Wexler, Ol' Yaller Mark III was the only one of the Ol' Yaller series to be configured as a proper sports car, complete with doors and a full-width windshield that could be removed for racing. That it was both raced and driven on city streets is the ultimate compliment to the husband and wife team that created it. — *KF*

Together with his wife, Ina, Max Balchowsky built a series of homespun vehicles that could outrace most exotica of the day.

1959 Balchowsky Ol' Yaller Mark III

FIRST AMBR WINNER

1929 Ford "NieKamp Roadster"

The purposeful stance of the "NieKamp Roadster" contributed to its success on both the track and the show circuit.

“WHEN BILL NIEKAMP DECIDED TO BUILD A HOT ROD HE BUILT A DARN GOOD ONE!”

***HOT ROD* MAGAZINE, 1950**

Since the earliest days of the automobile, motorists have sought ways to stand out from everyone else on the road. In the earliest years of manufacturing, the best way to be noticed was by having an entire body custom made by hand and installed on the chassis of one’s choice. Then, as the demand for bespoke coachwork disappeared in the years immediately following World War II, enterprising individuals like George Barris, Joe Bailon, and dozens of others determined that by making a few subtle (and sometimes not so subtle) changes to a fenderline, tail-light housing, or grille, the personality of a vehicle could be entirely transformed. Such cars were virtually guaranteed to be featured in one of the many enthusiast magazines of the day. But the creativity did not stop with customized sedans, coupes, and convertibles. It ultimately extended even to the once-lowly hot rod.

Well known for their mechanical ingenuity and ability to mix and match speed-shop parts in just the right way to achieve top performance, hot rodders had gathered to test their cars’ merits in a wide variety of contests since the early days of hot rodding. Held on dry lake beds, public roads, salt flats, and airport runways, these trials included competitions for highest top speed, quickest acceleration, and even best sportsmanship. Yet many car builders gave their cars more than a performance boost. More than a few hot rod builders not only spent time coaxing the best possible performance out of their cars, but also took exceptional care to make sure that the finished vehicles looked as aesthetically pleasing as possible, both inside and out. It was an aspect of the hobby begging to be celebrated.

Taking place in venues ranging from local parking lots to elaborate convention halls, many post-race celebrations were held to honor the winners of the day’s many races and time trials. And as long as the cars were all in one place, why not also compare them against each other to see which ones were considered by their peers to be the most attractive? As a result, hot rods developed along two paths: one that emphasized performance and another that emphasized appearance. But before the differences became so extreme that the characteristics

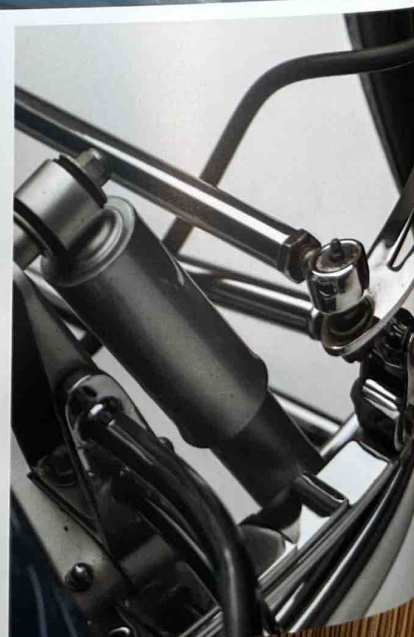
of race-winning performance and breathtaking beauty became effectively mutually exclusive, there were a few cars that could easily qualify to win an award in either category. And the one that did it first was the "NieKamp Roadster."

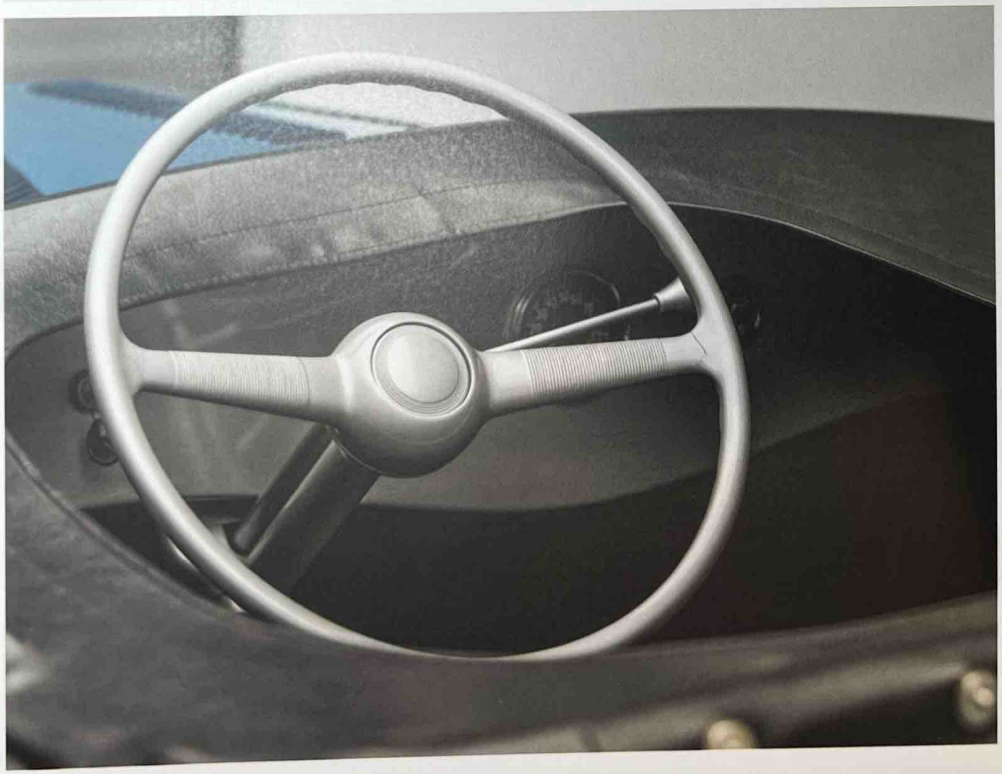
Almost always known by the builder's name instead of the manufacturer of the base car, many of the most attractive hot rods became noteworthy by winning one award in particular, the America's Most Beautiful Roadster trophy. Also known by its initials A-M-B-R or its colloquial pronunciation "amber," it is the hot rod world's highest honor. It has been that way since 1950, the year that the Grand National Roadster Show, one of the largest and longest-running hot rod and custom car shows in America, was first held. Though the parameters for the AMBR prize have changed many times since the competition's inception, vehicles that earn the distinction are guaranteed a place in hot rod history.

The Grand National Roadster Show, which has been variously known as the National Roadster Show, the Oakland Roadster Show, and a small number of other names in its 71-year history, is fundamentally a competition that pits hot rod builders and their owners against each other in friendly–though often spirited–competition. Reserved for both two- and four-seat open cars, the AMBR trophy is awarded to vehicles manufactured before 1937, or at least to those that look like they were. The first official Grand National Roadster Show was organized by promoters Al and Mary Slonaker. But the 1950 show was not the Slonakers' first car event; they had held one the year before. And while the focus of the 1949 show was on new, factory-built sedans, coupes, convertibles, and sports cars, most attendees crowded around a small contingent of hot rods also present. The Slonakers soon found that showgoers favored these homegrown hot rods over the 70 or 80 regular production cars also exhibited. It was a moment of enlightenment for Al Slonaker, who decided that for 1950 they were going to "do things differently," as he told his wife, by switching the emphasis to hot rods and custom cars. But in order to get around using the term "hot rod," which the press and advertisers did not like because of its perceived association with delinquent youth, they instead marketed the event as the National Roadster Show, an alternative that spoke to the extreme popularity of the roadster body style among hot rod aficionados.

Typical of the day, the majority of design talent was lavished not on the interior of this roadster but on its mechanical aspects.

The Slonakers needed to reach a wide and receptive audience in order for the show to be successful, and the first advertisement for their National Roadster Show appeared in the pages of the October 1949 issue of *Hot Rod* magazine, a specialist publication founded the year before by Robert E. Petersen who, together with his wife, Margie, also founded the Petersen Automotive Museum 44 years





later. Desiring to be as inclusive as possible, the Slonakers also exhibited a selection of dirt track racers, which they promoted in the souvenir program with a photo depicting popular racer Freddie Agabashian and "Miss California" for 1950, Jone Pedersen. The event's grand prize, a larger-than-life perpetual trophy that stood nine feet tall, was also pictured in the program, and the first name to be emblazoned on it was that of Bill NieKamp, an automobile painter in Long Beach and member of the Road Runners car club.

Called a "1929 Ford" even though it was also built up from parts of other cars (such as the 1949 Plymouth tail lamps and 1927 Essex frame rails), the build was a process that, by NieKamp's own estimate, took approximately 2,200 hours, the equivalent of six hours a day for an entire calendar year. NieKamp assembled the car's body from panels from four different Model A Fords and, while he did the vast amount of work himself, he called upon Whitney Clayton to fabricate the custom aluminum grille, hood panels, and nosepiece. Once completed, it was a virtual study in amateur aerodynamics, which became especially evident in its rounded nose and aluminum belly pan, both of which reduced drag at high speeds. Yet the roadster was not just built for appearance. NieKamp endowed it with a 1942 Mercury engine modified with parts by Thompson, Winfield, Jim Kurten, and Weiand to make it perform as beautifully as it looked.

In addition to the title of "America's Most Beautiful Roadster," Bill NieKamp's hot rod won numerous additional awards early in its days as a show car. As *Hot Rod* magazine declared in its March 1950 issue, "When Bill NieKamp decided to build a hot rod he built a darn good one!" The sentiment was proven predictive two years later when it achieved an astounding top speed of over 142 miles per hour at El Mirage dry lake. The NieKamp Roadster would be one of the last roadsters capable of playing the role of both racer and showpiece. As the differences between racing hot rods and AMBR winners became more pronounced, the extreme contrast in their uses allowed little room for any kind of dual-purpose competition. But for that seminal first year, there was one roadster that could lay claim to truly having it all. P – *KF*

1929 Ford "NieKamp Roadster"

LITTLE BOAT

1952 Ferrari 212/225 Inter Barchetta by Carrozzeria Touring

Bearing serial number 0253/EU, this 1952 Ferrari 212/225 Inter Barchetta is one of the most storied Ferraris to ever wear the famous badge. It was the last Barchetta ever built, the only one of its kind fitted with a race-type engine, and one of the earliest left-hand drive models. And it was ordered by one of the most powerful men in the realm of mid-century automobile manufacturing, Henry Ford II, and delivered new to the company that bore his name.

Like with virtually every other early Ferrari, the numeric model designation "212" was part of a formula that was used to calculate the displacement of the engine that was originally intended to power it. The number indicated the capacity of each cylinder (212 cc), which was multiplied by the number of cylinders in the engine (12) to arrive at the total displacement (2.5 liters). But this Ferrari had something under the hood that no other 212 had: a factory-installed, race-oriented 225 engine complete with three Weber carburetors for maximum breathing efficiency. In keeping with Ferrari practice, 12 cylinders multiplied by 225 cc per cylinder yielded a total displacement of 2.7 liters. And although the engine was considered small by American standards, it produced 210 horsepower at 7,000 rpm, remarkable figures for the day. Coupled to the engine was a manual transmission with five speeds, a novelty during a time when three- and four-speed transmissions were almost universally employed by sports car manufacturers.

But power and flexibility were not the only characteristics that set this elegantly engineered Ferrari apart from less exotic cars of the day. Its uniqueness extended even to the coachwork; it was the last to feature "Barchetta" (Italian for "little boat") styling that

The last Ferrari Barchetta remains in outstanding original condition, having been driven a mere 19,284 kilometers.

was innovated by Carrozzeria Touring and constructed according to their signature *superleggera* ("super light") construction principle, which was defined by a series of small diameter steel tubes that served as a latticework upon which the delicate aluminum body panels were attached. Such a method not only minimized weight but allowed body designers considerable freedom with exterior styling. And while initial design drawings depicted the Barchetta with a sideways-facing jump seat behind the front two occupants, most aficionados are relieved to know that this feature was discarded in favor of a longer rear deck that allowed for additional luggage space. Considered as a whole, the ensemble embodies the kind of organic fluidity that can only be achieved with a hand-built object.

Contrary to the intriguing assumption that the car was given as an outright gift from Enzo Ferrari to Henry Ford II, the Ferrari was purchased by the Ford Motor Company itself. Documents in the Petersen Automotive Museum archives reveal that the transaction was handled by an Italian intermediary, a Rome-based car dealer by the name of Giuseppe Santi, to whom it was invoiced before being shipped to Dearborn, Michigan. And although the factory build sheet states "Speciale per sig. H.F. Fort" (an obvious misspelling of "Ford" considering the context), this was simply because orders received in the name of a recognizably prominent, wealthy individual tended to be treated with a greater sense of urgency than those that were not.

Soon after delivery, Ford showed the little Ferrari to a member of the Firestone family who said, "this car needs whitewalls," and then had a set of Firestone 500 whitewall tires specially made for it. One can only imagine that more than a few Ford Motor Co. VIPs took their turn at the wheel, but when the time came to get serious about the Barchetta's intended purpose, it found its way to the Ford design studio where company stylists analyzed it in anticipation of the day when the auto-making giant would introduce a two-seat car of its own. While there is extraordinarily little apparent similarity between the Ferrari Barchetta and the Ford Thunderbird, a small number of elements of the Barchetta's styling are believed to have been subtly incorporated into the final Thunderbird design, including the egg-crate grille and the overall proportions. Seldom driven, the Ferrari 212/225 Barchetta changed hands several times over the years before ultimately being purchased by Robert E. Petersen.

With an odometer reading of fewer than 20,000 kilometers, the one-of-a-kind Ferrari remains almost entirely original. The factory-applied paint finish and untouched engine and trunk compartments are a testament to what can be achieved with careful handling, sensitive preservation, and respectful operation, treatment that the Petersen Automotive Museum continues to afford it. Parked next to a modern Ferrari, the 1952 Barchetta's small sizes makes it appear almost toy-like. But compare its history and relevance to that of any other modern vehicle and it takes on the proportions of a locomotive. — *LK*

FIT FOR A PRINCE

1939 Bugatti Type 57C Cabriolet by Vanvooren

Like owning a settee that once graced the bedchamber of Louis XIV, possession of a Bugatti that was formerly the property of the Shah of Iran can, in a small way, help one capture the feeling of what it must have been like to be royalty. A Bugatti's uncommon beauty, superior quality, high initial cost, and extreme rarity distinguish it from all other automobiles. But unlike a piece of furniture, a Bugatti can be enjoyed in ways that other treasured possessions simply cannot. They offer a technical complexity that appeals to an engineer, a thrill of movement that appeals to an enthusiast, and a sculptural beauty that appeals to even the most jaded art aficionado.

Heralded by many as one of the most beautiful and sculpturally dynamic Bugatti Type 57s of all, the 1939 Type 57C by Vanvooren in the collection of the Petersen Automotive Museum would have been bodied in a manner similar to that of most of the other approximately 800 Type 57s built between 1934 and 1940 had it not been for good timing and fortunate circumstances. And while the coachwork almost certainly would have been as striking as any other design to grace a Type 57 chassis, it would lack the breathtaking beauty, the documented royal provenance, the unparalleled rarity, and the long-held secret of its existence that has made it as fascinating to learn about as it is enthralling to behold.

Ettore Bugatti, a French national of Italian extraction, was an iconoclast who manufactured jewel-like automobiles in Molsheim, France, from 1909 to 1956. As much a connoisseur of fine design as he was an engineer, Ettore Bugatti was born to a family of great artistic talent. And the legacy did not end with his generation, because, while he was busy developing the mechanical aspects of the Type 57 chassis, his son Jean had been dreaming up legendary designs for the coachwork that it would wear.

The Type 57, first seen at the 1934 Paris Auto Salon, was powered by an advanced 3.3-liter, twin-cam, straight-eight engine, which made it a fast, comfortable touring car. Introduced in 1937 and offered through 1939, the 160-horsepower supercharged version was dubbed the Type 57C, the "C" standing for "compressor," the French word for "supercharger." It was a suitable platform on which to mount coachwork destined for the world's most demanding customers. And what Jean Bugatti could not conjure up, others could.

Most luxury car manufacturers prior to World War II built only their vehicles' chassis, which included the frame rails, wheels and axles, engine and transmission, steering wheel and brakes, and virtually every other mechanical component that made a car move. The chassis would then be sent to a favorite coachbuilder who would design and construct whatever type of body the client desired. By 1939 those designs were increasingly inspired by the Art Deco movement that had originated 14 years earlier. Streamlining took on a new meaning that owed nothing to the horse-drawn carriages that preceded the automobile.

The 1930s is often regarded as the golden age of coachbuilding, thanks in part to the influence of the Art Deco movement. Despite war, famine, inflation, labor strikes, civil unrest, and other hardships, the very wealthy clung to a way of life that would quickly disappear with the beginning of World War II. But as long as their fortunes remained intact, they were able to commission automobiles of great luxury and exquisite beauty. And as history teaches us, it was not just private citizens that could order bespoke automobiles; governments could do it, too.

Active between 1923 and 1951, Figoni et Falaschi Carrossiers operated out of their Paris workshops where they created a distinctive style defined by a graceful elegance that equaled–and often exceeded–that of many of their contemporaries. Then at the 1936 Paris Salon, Figoni et Falaschi introduced a teardrop roadster on a Type 135MS Delahaye that was so sensational it became an icon of the streamlined era and thrust the name into the international spotlight.

Three successful years later, in 1939, Joseph

Though the original horseshoe-shaped grille was retained, special coachwork gives this one-of-a-kind Bugatti a look like no other.

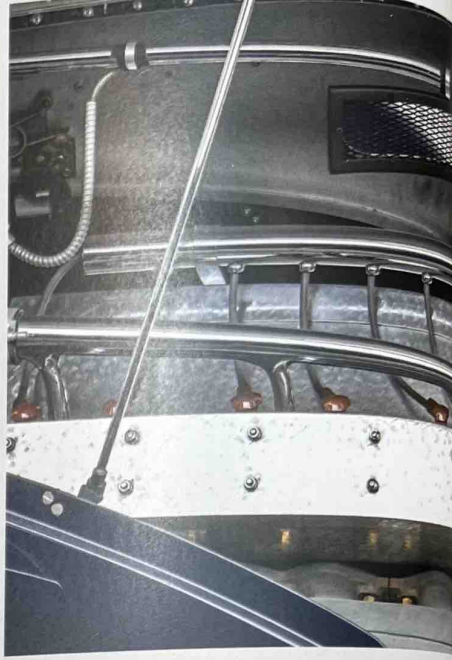
Figoni debuted what many consider to be his masterwork, a convertible coupe on a Delahaye Type 165 chassis whose voluptuous beauty concealed a race-bred triple *under-head* cam V-12 engine that delivered a level of performance commensurate with its looks. It had a rumble seat for occasional passengers and a windshield that could be lowered into the cowl by means of a hand crank mounted under the dashboard. Such a combination of design elements was unexpected for 1939, but they were the kinds of features that made a Figoni-bodied car's beauty more than skin deep.

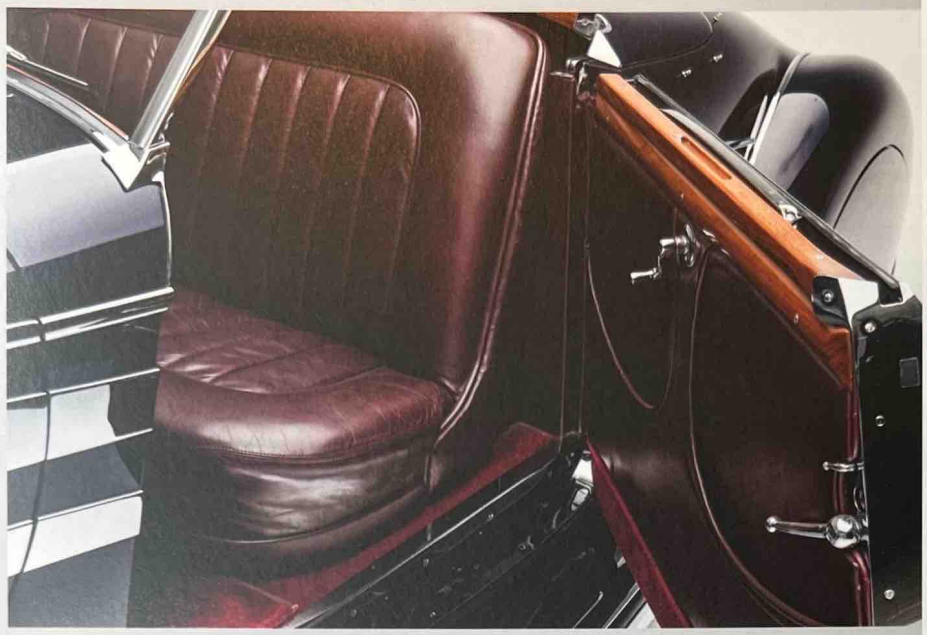
On March 16, 1939, Mohammad Reza Pahlavi, the Prince of Persia and future Shah of Iran, married Princess Fawzia of Egypt, King Farouk's glamorous sister. In order to congratulate him in a way that would cement their countries' political ties and remind the Persian leader of the exquisite nature of French design, the French government chose as a wedding gift a bespoke automobile. The decision makers must have reasoned that the Shah already had enough formal vehicles at his disposal and so they chose the most sporting car their country could make upon which to mount the most sublime coachwork their country could create. The chassis was to be a supercharged Bugatti Type 57C and the body was to have fully skirted fenders, a top that concealed beneath a metal panel when lowered, and a windshield that lowered into the cowl.

But despite the fact that the coachwork was so similar to a Figoni-Falaschi design, the firm was not chosen to build the body. Instead the dramatic coachwork was constructed by Vanvooren of Paris in the Figoni style. Some believe that Figoni-Falaschi was too busy to accept a commission on what might have been short notice. Others believe that the Vanvooren Bugatti may actually deserve some credit for the design since the Shah's wedding was in March of 1939 and the Delahaye was not due to be introduced until October. But regardless of the origin of the design of the coachwork, the Shah must certainly have enjoyed the car, at least as much as he could on the limited number of paved highways in the Middle East at the time.

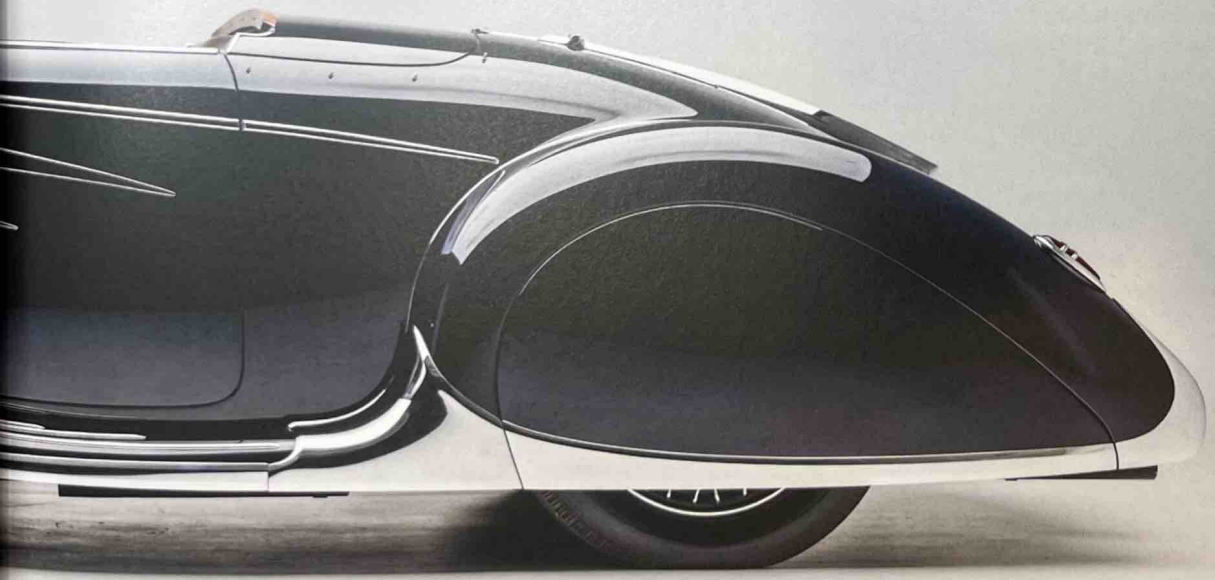
The time eventually came for the car to be sold. While a small number of royal families have large

"... A BUGATTI CAN BE ENJOYED IN WAYS THAT OTHER TREASURED POSSESSIONS SIMPLY CANNOT."





Unlike other Bugattis, this car's windshield can be partially or fully lowered into the cowl depending on the whim of the driver.



garages that contain virtually all of the vehicles that have been specially built for them over time, most leaders of governments occasionally let go of their cars, and in 1959 the Shah Bugatti was sold out of the imperial garage to a Mr. Hooshung Jalili for the equivalent of about 275 US dollars. The sum today seems like the ultimate bargain until one considers that, by 1959, the Bugatti was an orphan manufacturer, making dealer support non-existent and parts virtually impossible to obtain. And as cutting edge as the Type 57 was in 1939, it was regarded as anything but 20 years later. Large V-8 engines had usurped the limelight by that time, supercharging was considered *passé*, air conditioning and power assisted accessories had come into general use, and fins and quad headlights were the new styling musts. The Shah Bugatti was a holdover from a time that had come and gone.

Having passed to yet another new owner, the special Bugatti was later photographed being driven in Amsterdam, The Netherlands. Considered merely a "used car" at the time, it was protected from body damage by a crude bumper and unattractive bright metal strips on the front fenders. When it was acquired by an American collector during the 1960s, the 1939 Bugatti that originally belonged to the Shah of Iran was in near derelict condition, its missing engine and fender skirts showing that a royal pedigree does not always guarantee that a vehicle will be well cared for once it leaves the protection of its original owner.

The supercharged 1939 Bugatti has now been restored to its original splendor and looks almost exactly as it did when it was given by the French government to the Prince of Persia in 1939. And even though it is most appreciated for its extraordinary beauty and provenance, the Shah's Bugatti remains the perfect example of how road travel for modern heads of state has changed so drastically since World War II. Today's need for security has resulted in cars that allow for virtually no public contact. Large, intimidating SUVs, like GMC Suburbans, now often transport royalty and national rulers on non-ceremonial occasions. But there was one glorious period in history when public roads were safe for a monarch to drive, free from worry and able to enjoy the beauty of their surroundings at their own pace. — *LK*

1939 Bugatti Type 57C Cabriolet by Vanvooren

DOUBLE VISION

1964 Chevrolet El Camino "Blind Faith" by Harry Bradley

It would be difficult to think of an automotive stylist other than Harry Bentley Bradley who can lay claim to the honor of having designed more of today's most collectible vehicles than anyone else. And the reality that those collectible vehicles were 12 of the original 16 Hot Wheels gives his work an importance rivaling that of any car design legend past or present.

Considering the number of automobile designers, customizers, and industry influencers who have owned and handled these miniature examples of Bradley's work, his opinions about car design have likely been spread more widely throughout the world than those of just about anyone else. And his formula for success was as straightforward as having the judgement to recognize favorable circumstances, the wisdom to know when the timing was right, and the drive to seize opportunities wherever they could be found.

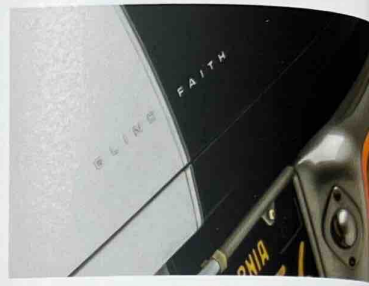
But it is far easier to describe the characteristics that define success than it is to live them. Yet Harry Bradley did so, and today we consider ourselves lucky that he was around to take advantage of the circumstances that prevailed when so many of today's leading designers were developing their interest in automobiles. Having grown up in coastal Southern California, in the San Diego beach enclave of La Jolla, Bradley had exposure to the energizing lifestyle surrounding postwar surf culture and the kinds of cars embraced by the youth nearby. Ultimately, he moved to Los Angeles–the dreamland of almost every automobile enthusiast regardless of their favorite kinds of cars–where the sleek customs, ingenious hot rods, exotic European imports, flashy American luxury barges, and thundering race cars were difficult for anyone not to notice. He was closer than ever before to the most popular customizers of the world and had an enviable opportunity to see firsthand how the right mix of custom touches could turn an otherwise ordinary vehicle into something unique and influential.

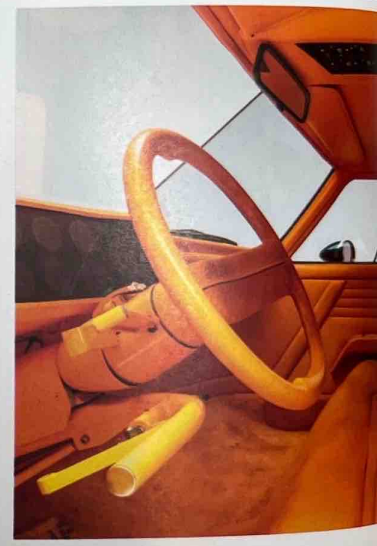
Having a high school friend who owned a Barris custom must have strengthened Bradley's enthusiasm for creative design, and upon high school graduation, he enrolled at the Pratt Institute in New York, one of the most prestigious design schools in the United States. While there, he opened his own design studio where he illustrated customs for private clients and for publication in magazines. In 1962 he took a position in the Advanced Design Studio at General Motors, but kept busy on the side creating artwork for magazines. (He had to do so under an alias because of GM rules about moonlighting.) Two years into his career at GM, he purchased a Chevrolet El Camino that would later be used to define the basic style of the vehicles that would fuel the dreams of millions.

Like a sculptor working on perfecting a statue, Bradley got to work altering the design of his personal 1964 El Camino in ways that he knew would make the vehicle stand out, not only from all the other customs, but also from every other regular production car on the road. And he did not design it simply for his own use, but to demonstrate to GM management that his ideas for transforming the shape of the production vehicle into something sleeker and more dynamic should be taken seriously. To ensure his design was interpreted accurately, Bradley engaged the renowned Alexander Brothers to transform the vehicle–barely two years old by that time–into what became a genuine prototype. The 2.5-inch chop and new sweeping fastback profile of the cab (adapted from a 1964 Pontiac Grand Prix) was ultimately so enthusiastically embraced by GM management that Bradley's car came to serve as the basis for the look of the all-new 1968 Chevrolet El Camino.

But Bradley's 1964 El Camino did not just influence a range of full-size production cars, it became the inspiration for a new line of vehicles that had nothing to do with General Motors. That range of vehicles was the first series of Mattel Hot Wheels. And while the cars may have been just 1/64th the size of full-scale vehicles, they put Bradley's designs into the hands of a generation of people who would grow up to run the automobile industry. With five-spoke mag wheels, red-stripe tires, a stylized hood bulge, and candy-colored paint, Harry Bradley's El Camino was the car that defined the Hot Wheels look for years to come.

Once he had the satisfaction of seeing his influential custom serve its purpose as the first of a new generation of El Caminos–not to mention the inspiration for the four billion Hot Wheels that followed–Harry Bradley decided to have a bit of fun of his own. In 1973 he began work transforming his prized custom into Blind Faith, the final version of his El Camino. It took ten years to complete, but it is easy to understand why considering that it was not only wildly restyled, but also entirely re-engineered.





The more obvious changes were the remodeled front clip, the installation of a flush-fitting bed cover that opened by means

An orange interior offers a bold contrast with the El Camino's two-tone exterior paintwork.

of an electric screw drive, and the use of specially shaped taillights that were redesigned to better frame the area once occupied by the tailgate. Squared wheel openings highlight the 18-inch custom wheels and custom Goodyear tires, each of which has an orange band embedded into the circumference of its tread for the kind of custom touch that most people would consider too difficult to tackle.

Changes not as readily visible are the engineering modifications that include the replacement of the front-mounted engine and transmission with a 1967 front-wheel drive Oldsmobile Toronado subframe and accompanying 395-horsepower engine installed in what was formerly the cargo bed, giving the vehicle a rear-wheel drive, mid-engine configuration akin to that of a Dino 246 GT or Ferrari 308 GTB. The interior is a study in lines, and hand controls replace pedals to clean up the look even more. According to Bradley, "this interior is a sort of personal environment…almost as if you were sealed-in, surrounded by color and flowing pattern."

But the most obvious modification is the bold black-and-white paint scheme, which was intended to emphasize the vehicle's centerline and call attention to its proportions. The separation is emphasized by a special type of 3M tape that gives it a unique look depending on how the light strikes it. Even the glass follows the black/white color scheme. According to Bradley, the left side is cool and energized while the right side is forceful and serious. He has even described it as "really two cars." It somehow manages to express its two personalities without coming across as confused. But what else could you expect of a person whose roadgoing resume includes the custom 1951 Chevrolet La Jolla, the 1967 Dodge Deora, and the 1995 Oscar Mayer Wienermobile.

More recently, Harry Bradley has been an instructor in the Transportation Design Department at the Art Center College of Design in Pasadena, where he is quick to tell his students that altering an existing car is very different than building it from scratch and that the customizer must have a comprehensive understanding of what designers call a "vocabulary of forms" to appropriately reconfigure a vehicle. And the customizers on whose talents he drew were as extraordinary as those who built the coveted Dream Truck of the 1950s and the XR-6 that took AMBR (America's Most Beautiful Roadster) honors at the Grand National Roadster Show in 1963. Included among them are the Alexander brothers, Bill Cushenberry, and Rod Powell. They painstakingly considered the planning and execution of even the smallest details along with Harry Bradley, who in 2001 donated this important custom to the Petersen Automotive Museum. Bradley has said that Blind Faith to him is more than a mere vehicle, but an experience that makes one smile. And having created an artistic and engineering masterpiece that has stood the test of time, he probably has the biggest grin of all. — *LK*

1964 Chevrolet El Camino "Blind Faith" by Harry Bradley

HIGH DESIGN

1947 Cisitalia 202 Coupe by Pinin Farina

Cisitalia (pronounced chee-see-TAH-lee-uh) is likely one of the most influential automobile manufacturers that most people have never heard of. Founded by wealthy Italian industrialist Piero Dusio, the name was a partial acronym that stood for Consorzio Industriale Sportiva Italia. It was one of dozens of small Italian firms established after World War II that built small specialty sports cars using inexpensive, widely available Fiat components. Yet, while much of the Cisitalia's mechanical specifications were shared with the products from other boutique Italian manufacturers like SIATA, Bandini, and Abarth, it was the unmistakable beauty of the coachwork that would set it apart from everything that had come before and secure its place in automotive history.

The story of Cisitalia starts with Piero Dusio. Born in Scurzolengo in the hilly, wine-producing Italian province of Asti in 1899, Dusio at just 17 years of age had become a successful professional soccer player in Turin with the renowned Juventus Football Club. After his career was cut short because of a knee injury at the age of 24, Dusio's search for opportunity led him to a Swiss textile company, where he secured a job as a salesman. Dusio must have been paying close attention to the finer points of the business because, by 1927, he had become proficient enough to quit the job and start his own textile company manufacturing oil cloth. Success followed, and he became wealthy manufacturing sports clothes, tennis rackets, and bicycles. His work ultimately attracted the attention of Mussolini's Italian Royal Army, which in 1939 gave him the contract to manufacture virtually all of their uniforms, making him even wealthier in the process.

But the garment industry was not Piero Dusio's only interest. Having also been a champion amateur racing driver–even winning his class in the 1937 Mille Miglia–Dusio believed that a new, affordable racing series would be the ideal way for all of Europe to get back into motorsports, even as it was still reeling from a devastating war. Using part of his fortune to get back into the sport that he loved, Dusio engaged Fiat designer Dante Giacosa, engineer Giovanni Savonuzzi, and drivers Piero Taruffi and Tazio Nuvolari to join him in designing a new racing car for the driver of average means. Together, they created the Cisitalia D46, which was relatively affordable because of the adaptation of so many inexpensive, mass-produced parts with which designer Giacosa was already so intimately familiar. Full production began in 1946 with a batch of 40 vehicles.

The Cisitalia D46 may have used a suitably modified, production-derived Fiat 1100 engine, but it diverged from mass-production practice by not being built on a typical chassis. Instead, the little D46 was built using a sophisticated spaceframe, whose strength and light weight can be traced to Giacosa's wartime aeronautical experience, not to mention a stash of chrome-molybdenum for which Piero Dusio likely had to employ "creative means" to acquire. A separate series was soon established just for Cisitalias, and Tazio Nuvolari himself even drove a D46 to multiple victories against prewar cars that, while advanced for their day, were considerably older. Yet while initial orders were strong, thanks in part to their

low 880-pound weight and 62-horsepower engine, the cars did not capture the public imagination the way Dusio had hoped. Piero Dusio knew that the world was ready for something new. And so was he.

Never having manufactured automobiles prior to World War II, upstart Cisitalia was not bound by tradition or obligated to produce a warmed-over version of a prewar model, complete with an arbitrary visual identity that would likely have been most apparent in the grille. This gave Dusio and his team the freedom to engineer cars that could be entirely new and modern, both inside and out. One of the firm's most obvious departures from prevailing practice was to continue to employ a lightweight, hand-welded tube-frame structure that had been used for the D46 racing cars. It was expensive to produce yet low slung and strong, characteristics that made it ideally suited to an emerging Italian style of coachwork that would soon take the automobile design world by storm.

Already well aware of the Italian contribution to the look of clothing, art, and architecture, enthusiasts would not be surprised to learn that the country that gave the world Michelangelo and Botticelli also gave it the designers responsible for some of the world's most beautiful automobiles. The Italian emphasis on well-designed vehicles began during the days of the horse-drawn carriage and continued seamlessly into the automobile age. And while many early coachbuilders found it difficult to adapt to bodying automobiles instead of carriages, those that survived became responsible for vehicles that embodied advanced styling themes that pushed the envelope. The result was a distinctive, Italian type of coachwork that began to emerge after World War II. And the grace, concision, and unpretentious elegance that became its hallmarks were perfectly exemplified in Dusio's 1947 Cisitalia 202 Coupe.

The Pinin Farina design of the 1947 Cisitalia coupe continues to captivate art and design aficionados.

A small number of chassis were made available for custom coachwork, but it was Pinin Farina that drew the definitive design that would come to be so widely acclaimed. Considered revolutionary because of its taut lines and low silhouette, the Pinin Farina-bodied Cisitalia was the first series-produced automobile with the hood lower than the fenders. The fastback design was aerodynamically efficient, and the grille opening was only as large as it needed to be to admit the required amount of air to cool the modified 1,100-cc Fiat engine. Its 50 horsepower may have been low by American standards, but a Cisitalia 202 Coupe could reach a top speed of over 105 miles per hour thanks to its slippery aerodynamic coachwork devoid of superfluous, drag-inducing add-ons. The motoring world needed elegant simplicity and that is what a Cisitalia by Pinin Farina offered.

The revolutionary new car debuted at the Paris Salon in October 1947 painted aquamarine and shod in black-wall tires. One month later, another Cisitalia 202 was presented at the "Salone della Carrozzeria" in Milan painted a pale pearl grey with whitewall tires. In March 1948, the Cisitalia was presented by Piero Dusio himself on the streets of New York, where a deal was quickly cemented with renowned European importer Max Hoffman, well known at the time for the mouthwatering array of exotica he carried in his Park Avenue showroom. The price was a towering $6,800, more than twice that of a $3,000 Cadillac sedan at the time. Ultimately, the coupe was supplemented by a cabriolet and race-oriented Spyder Nuvolari. Production totaled approximately 100 coupes, 60 cabriolets, and 10 Spyder Nuvolaris.

The Cisitalia 202 Coupe was so widely admired that it gained the attention of a class of connoisseurs not normally associated with a fondness for automobiles–fine art experts. A Cisitalia 202 was even featured (along with seven other cars) in the 1951 New York Museum of Modern Art (MoMA) show entitled *8 Automobiles*, an exhibition that studied excellence in automobile body design and which identified the Pinin Farina Cisitalia as the new standard. Fittingly, Pininfarina (a one word name beginning in 1961) donated a Cisitalia 202 to MoMA's permanent collection in 1972, where it still serves as one of the world's most highly regarded examples of machine art.

The Cisitalia 202 Coupe in the Petersen Automotive Museum collection–which retains its original windshield, grille, and bumpers that distinguish it as an early car–was owned by only two enthusiasts before being acquired by Mr. and Mrs. Petersen in 2002. Having purchased a Cisitalia when they were new, Mr. Petersen immediately recognized the car's importance and commissioned a restoration that returned it to its original brilliance. The car made its post-restoration debut at the 2004 Pebble Beach Concours d'Elegance where it was awarded the top prize in its class, the first of many accolades it would ultimately receive and a testament to its enduring grace and beauty. – *LK*

1957 Chevrolet One-Fifty Two-Door Utility Sedan "Black Widow" by SEDCO

SEDCO'S SPIDER

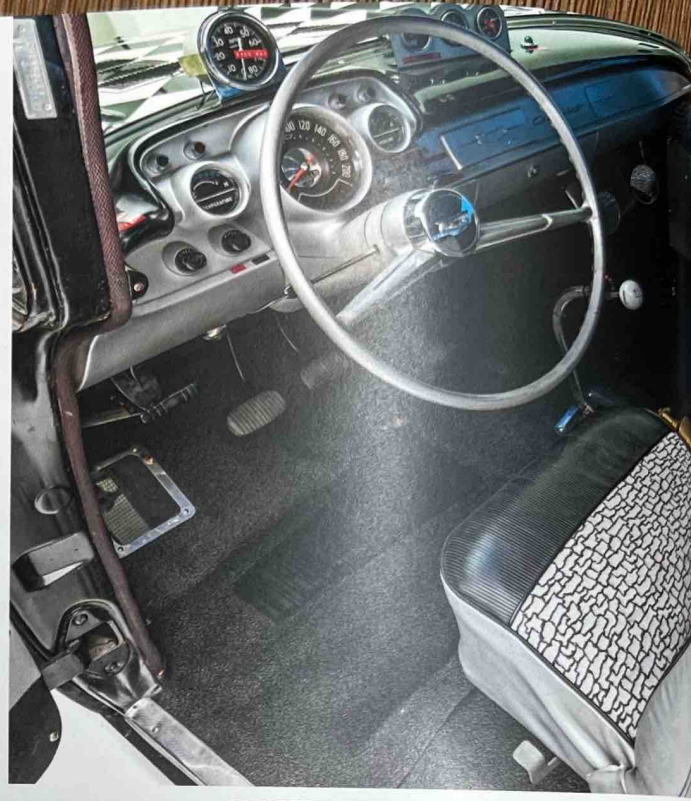
During the mid-1950s, Chevrolet boasted three different series of passenger cars, all with jet-age styling and each with its own distinctive paint treatments and chrome trim to set it apart from the others. It was a hierarchy of models among a hierarchy of brands for which General Motors had become famous. And thanks to the seemingly countless available combinations of options and accessories, it was as easy to spot the vehicle belonging to a suburban-dwelling parent as it was the vehicle belonging to an extroverted fifty-something. But there was one special combination of equipment that transformed a Chevrolet into the car that positively identified its owner as a performance aficionado with an appreciation for mechanical sophistication. An otherwise ordinary two-door sedan delivered to racing teams with factory fuel injection, it became known as the Black Widow, likely because of the fear it instilled in its competitors and the respect it commanded by those in the know.

By 1957 Chevrolet had come to accept that performance was a major factor in a consumer's decision on what kind of car to buy. That same year, the GM division marketing team sent a letter to dealers introducing a "powerful aid" designed to publicize its success in stock-car racing and entice buyers to use Chevrolet parts to modify their cars for racing. Called the "1957 Chevrolet Stock Car Competition Guide," it featured the Black Widow prominently on its cover and a menu of options available to ambitious racing teams on the inside. To illustrate the possibilities available to builders, the "Competition Guide" also detailed how to create an unusually potent Chevrolet with Black Widow specifications to give them the opportunity to build their own competitive Chevrolet racing cars.

In its basic form, the Black Widow was simply a Chevrolet One-Fifty two-door "post"-utility sedan, factory delivered without a clock, radio, heater, or other then-common niceties. Originally intended for traveling salesmen who needed more space to carry product samples than the trunk could offer, the utility sedan did not have a rear seat, but rather a flat surface to accommodate additional cargo. And instead of having the thrifty six-cylinder engine normally associated with such mundane cars, the Black Widow boasted a 283-cubic-inch, fuel-injected engine with solid lifters and an aggressive cam. With a mechanical fuel-injection system designed under the supervision of legendary Chevrolet engineer Zora Arkus-Duntov, the 250-horsepower engine proclaimed Chevrolet's standing as the first GM division to openly embrace the emerging performance market.

At about $550, fuel injection was an extremely expensive option for a car that cost just $1,985 in its basic form. It is estimated that only about 7,800 Chevrolets (including Corvettes) of the 1,561,655 built in 1957 were equipped with the option. Of this tiny number, a mere 12 were race-oriented Black Widows. It was the most powerful engine available in a Chevrolet installed in the lightest body style available–a formula that was proven successful since almost the beginning of automotive history and one that would be revisited again and again by builders from every form of racing. But as workaday as the Black Widow seemed, it was bristling with performance modifications that made it a formidable competitor in both NASCAR and drag racing.

Black Widows were specially modified for racing by the Southern Engineering Development Company (SEDCO) in Atlanta, Georgia, to incorporate the



The most powerful available engine in the lightest available body style was a recipe for outstanding performance.

parts and modifications selected and approved by Chevrolet. Established by Vince Piggins, SEDCO managed all of Chevrolet's racing activities from NASCAR to USAC and had an engineering staff capable of transforming the divisions' regular production cars from mere transportation appliances to competition contenders. To the surprise of even Chevrolet, the Black Widow proved to have a potent bite and the combination of equipment performed well enough to earn respectable places among established racing enterprises. In the hands of drivers like Jack Smith, Chevrolet's modified One-Fifty two-door utility sedan gave Chevrolet the race wins that only enhanced its growing performance image.

Magazines like *Motor Trend* helped spread word of this success along with that of other manufacturers like Ford, which sought to secure its own share of the market. Both companies began sponsoring racing teams to target these newly identified buyers, competing for advertising visibility and product sales as much as they did for prestige and prize money. Unfortunately, the widely held belief that promoting certain types of cars for competition was contributing to irresponsible driving prompted GM and the rest of the American automobile industry to de-emphasize their corporate support of racing. On June 7, 1957, the American Automobile Manufacturers Association issued a statement recommending that car manufacturers not participate in any "public contest, competitive event or test of passenger cars involving or suggesting racing." Though this did not stop those companies from allowing magazines to publish road tests advertising their cars' speed, it did stop them from continuing their racing ventures. With this, SEDCO was dismantled and Chevrolet, and its competitors, pulled their official support from racing.

The Petersen Automotive Museum is fortunate to have been donated one of the rare Black Widows and has Scott and Fred Hawley to thank for their generosity. The vehicle has been restored to the configuration in which it last raced during the early 1960s, and it retains an unusually large number of the original SEDCO modifications, including the seamless frame and one-piece front bumper. Having been one of two test mules that Chevrolet used during the development of the fuel-injection system makes it even more significant. Although the Chevrolet/SEDCO Black Widow adventure seemed to be over almost before it started, the cars garnered 16 victories in NASCAR racing, earning Chevrolet the championship for 1957 and contributing to the GM division's cachet among performance aficionados. That same cachet exists today among collectors, who value the cars for the same reasons that enthusiasts did when they were new; a racing pedigree, a mechanical sophistication, and an unmatched ability to evoke the nostalgia of an optimistic era. — *KF*

1957 Chevrolet One-Fifty Two-Door Utility Sedan "Black Widow" by SEDCO

SEASIDE STYLE

1970 Fiat 850 Shellette by Michelotti

A chic interpretation on a personal transportation theme not seen for decades was revived by modern coachbuilders during the early 2010s. Known collectively by the Italian designation "spiaggina," they are derived from the smallest cars available from a manufacturer–often Fiat–and recall a carefree time between 1955 and 1970 when prosperity was high and the sophistication one projected regardless of the circumstances was vital to securing a place in the stratosphere of society. They were more than mere transportation from a cliffside villa to the sandy beach below, they were essential social accoutrements for many and emerged from the workshops of great coachbuilders such as Ghia, Pinin Farina, and Vignale. Some of the last were built by Michelotti, an example of which survives in the collection of the Petersen Automotive Museum and serves to define the ultimate in seaside outerwear.

As the popularity of the Mediterranean as a vacation area reached a new prominence during the 1950s and 1960s, the demand for a specialized vehicle that could satisfy several criteria steadily increased. Among the most important capabilities required of such a vehicle were nimble handling to get around the narrow streets of town with grace and aplomb, a small size that made it easy to both park and traverse narrow cobblestone streets, outstanding fuel economy to obviate frequent trips to the gas station, ease of service for the inevitable breakdowns, and seating surfaces that were impervious to wet bathing suits. One of the first to get the formula exactly right was Ghia, which answered the need with its Fiat Jolly. Impossibly charming, the Jolly was an adaptation of the rear-engine Fiat 500 and 600 and was the ultimate roadgoing transport for wealthy extroverts who wanted something chic in which to travel on short jaunts.

Without doors or windows and having only a striped fabric canopy for protection from the sun, the Jolly rapidly became a popular and fashionable alternative to regular production cars for those who could afford to own a vehicle with limited usefulness.

Known as *spiaggina* in Italy, small, stylish beach cars were a must for wealthy European seaside residents.

But like having a different home for every season, owning a vehicle for so specific a specific a purpose was regarded by potential buyers as entirely logical. Hand fabricated, its wicker seats were well suited for occupants wearing wet bathing suits, making them perfect for short trips to the beach or for retrieving guests from nearby marinas. Their small size made them ideal for transporting on yachts, providing their wealthy owners a ready means of land transportation when island hopping in the Mediterranean and elsewhere. Predictably, the high prices and minimal utility of such specialized cars did not affect their appeal to affluent seasonal residents, but it made them difficult to sell to buyers of average means, and the demand for them was slow.

Having witnessed the success of the Fiat and Renault Jollys, other coachbuilders soon began creating beach cars themselves, and firms such as Pinin Farina, Michelotti, and Vignale were displaying their own wicker-upholstered, teak-clad interpretations of the spiaggina at auto salons of the day. Even the American manufacturer Jeep attempted to capitalize on the popularity of beach car enthusiasm during the era with its Gala Surrey, a doorless vehicle like the Fiat Jolly, but scaled to a size that American buyers would be accustomed to. Available in green, blue, or pink, with matching striped tops and complementary upholstery, they were as impractical as they were endearing, and many found their way into the fleets of oceanfront or lakeside hotels, which employed them to transfer VIP guests to and from airports, marinas, and other destinations in style.

As chic as the Jolly was, the number of buyers willing to pay double the price for what amounted to half the car was not large, and the viability of the Jolly could not be sustained. But the Jolly was not off the market for long before another Italian carrozzeria decided that it was time to consider building a new series of beach cars: Michelotti. Named Shellette because it was created through partnership with yacht designer Phillip Schell, the fashionably angular vehicle was a sought-after commodity prior to the global financial downturn of the early 1970s. Like few cars of its day could do, the Shellette merged the beauty of Italian automotive design with the freethinking image of the 1970s to embody a sophistication that could turn heads.

The Shellette was based on the newly available Fiat 850 platform and, although it was equipped with a fabric canopy for basic weather protection, it had no doors. Like the Jolly that preceded it, the seats of the Shellette were fashioned from wicker to make them less susceptible to damage caused by damp bathing suits. And like any watercraft intended for use in an ocean environment, the sides of the interior were finished with teak, an expensive, but durable, wood with water-repellant properties. With the addition of a heater and stereo system, the Shellette could offer a basic measure of luxury to complement its sporting nature. It was an enjoyable ride on a sunny day, and, because the occupants were fully exposed to their surroundings, fun could be had at lower speeds since it seemed like it was always going much faster than it actually was.

One of only approximately 80 ever built, the car in the collection of the Petersen Automotive Museum was purchased new by the donor, who used it to run local errands in and around her Beverly Hills home before gifting it to the museum. Built for style rather than speed, the Shellette was the perfect car for a jaunt down to Rodeo Drive to run a quick errand. Its 47-horsepower engine could propel it to a top speed of only 85 miles per hour, but performance would never have been a top priority with any original owner, including beach-car buyers like Fiat boss Gianni Agnelli, shipping magnate Aristotle Onassis, and Ira von Furstenberg, the daughter of European nobility. Like the finest yachts and most stylish couture, the Shellette was an indulgence that was desired by all, available to few, and can still evoke the free-spirited image it helped to create. — *KF*

1970 Fiat 850 Shellette by Michelotti

LUXURY FOR TWO

1929 Du Pont Model G Speedster by Merrimac

Some of the most striking cars of the classic era were manufactured by E. Paul du Pont, a member of the same well-known family that made a fortune producing paint and chemicals. Founded in Wilmington, Delaware, Du Pont Motors, Inc. was established during World War I to manufacture marine engines for use during the conflict. When the war ended and marine engines were no longer needed, the company shifted to luxury automobile production.

The du Pont family's financial interest in automobiles dates back to 1914 when E. I. du Pont de Nemours and Company, under its president Pierre S. du Pont, began to invest in the fast-growing automobile industry. In 1915 Pierre du Pont became president of General Motors, and in 1918 E. I. du Pont de Nemours and Company acquired a significant stake in the auto manufacturing giant. But just because the family had a financial stake in GM did not mean that it was entitled to wield unbridled influence when the time came to decide on the company's model lineup.

History does not record whether or not GM executives ever considered adding a Du Pont to the roster of GM cars, but it became a moot point when production of automobiles bearing the Du Pont name began independently in Wilmington in 1919. It was a year that also marked the beginning of the Prohibition era in America and the eve of the Roaring Twenties, a time when many Americans had to get creative to have fun.

Unlike even the most expensive regular production GM models, Du Ponts were hand-crafted, ultra-luxury vehicles that competed in the same rarified market as manufacturers like Cunningham, Packard, and Brewster. So rather than debut their first car at the 1919 New York Auto Show alongside mass-produced vehicles–including General Motors marques such as Cadillac and Buick–the du Pont Model A was unveiled at the International Salon at the Commodore Hotel in New York, a venue

that ensured the new automobile would be associated with only the most glamorous names.

In 1923 Du Pont Motors moved its plant to Moore, Pennsylvania, and as the American economy boomed, it began to build ever larger and more luxurious vehicles targeted at the growing number of motorists seeking to proclaim their new affluence. The firm produced both four- and six-cylinder models until 1929, the year that their largest car, the eight-cylinder Model G, debuted. Desiring to prove its capability, the company entered a pair of four-passenger Model G Speedsters in the 24-hour-long Grand Prix d'Endurance race at Le Mans. Then, to take advantage of the publicity generated by their coming close to winning, Du Pont produced both two- and four-place versions of their race car for sale to the public.

A total of 273 Model G Du Ponts of all types were constructed in a variety of body styles, including a phaeton, coupe, sedan, victoria, limousine, convertible, and speedster. Chassis wheelbase lengths ranged from 125 to an imposing 150 inches. The smaller, lighter two-place speedster could reach approximately 100 miles per hour and sold for a high $5,335 when new. It could be ordered with either a disappearing or non-disappearing top. The press was enthusiastic about the powerful new model, and it found favor with a large number of influential buyers. Famous Du Pont owners included Will Rogers, Jack Dempsey, and Douglas Fairbanks, who received one as a gift from his wife, Mary Pickford.

All Model G Du Ponts had hand-built coachwork by some of the best-known body makers of the day, such as Derham, Waterhouse, and Merrimac, the firm that built their boattail speedsters. The large majority of cars were equipped with flat radiators, while the most sporting variants, including the speedsters, had rounded radiator shells to enhance their Art Deco appearance. Attractive though inefficient, Woodlight headlights were fitted as standard equipment. The Model G was powered by a Continental straight-eight engine modified by Du Pont for increased horsepower and fitted with a false valve cover to give the appearance that it was equipped with overhead valves, an advanced feature during the 1920s. Customers could choose either a three- or four-speed transmission.

In 1930 Du Pont motors entered a two-passenger Speedster, constructed using a 1929 frame and a modified production Continental eight-cylinder engine, in the Indianapolis 500. Although now known as SG1, the car has been most commonly referred to as "The Dupont Special," which was part of Du Pont's plan to gain further recognition for the company's exemplary performance capabilities. However, after being involved in an accident on the track resulting from an oil slick, the Dupont Special retired from the race after only 21 laps.

Like so many other luxury automobile manufacturers, production of Du Pont Motors ceased in the early 1930s following the rapid deepening of the Great Depression. But the family was not quite out of the business of making road vehicles. Merging what remained of the automobile company with his brother Francis's previous investment in the Indian Motocycle Company, E. Paul du Pont became Indian's president, appointing former Du Pont Motors production manager Loring F. "Joe" Hosley to oversee day-to-day operations. Du Pont also brought with him stylist Briggs Weaver, a former Du Pont Motors car designer, who is credited with the creation of Indian's recognizable streamlined designs. Although Du Pont Motors would not survive the financial crisis that defined the early 1930s, its absorption into Indian would eventually save the motorcycle company from ruin.

Of the small numbers of Du Pont automobiles produced, few escaped the scrapyards. Records show that 11 two-passenger Du Pont Speedsters were originally constructed, six of which are known to survive. Of the six, it is believed that three had a rounded rear deck with a non-disappearing top and three were equipped with considerably more exotic boattail bodies, complete with disappearing top, like the car in the Petersen Automotive Museum's collection. Like so many of the flashiest, most expensive cars in America during the day, this rakish vehicle was delivered new to Los Angeles and sold by area dealer E.A. Van Trump, Jr. Inc. to W.H. Hodgeman. After almost a decade in the hands of its original owner, the Du Pont was acquired in 1938 by Howard Newcome, who treasured the car for twenty years before selling it to the Harrah Automobile Collection. It was ultimately sold out of the Harrah Collection and remained in original, though worn, condition until the late 1980s when it was restored to its current concours standard and at which time the genuine Lalique Eagle's Head radiator mascot was fitted.

The extremely rare Du Pont came into the possession of the Petersen Automotive Museum in 1999. After a careful preparation, it was then shown at the Pebble Beach Concours d'Elegance where it generated an overwhelmingly positive reaction from both aficionados and the general public alike. It has since been shown at numerous other venues, including The Quail: A Motorsports Gathering, the Palos Verdes Concours d'Elegance, and the Palm Springs Desert Classic, where it won the coveted trophy for Most Important Prewar Car.

– Joseph Harper

The unusually long hood hints at the large-capacity straight-eight engine that powers this Le Mans-winning derivative.

1929 Du Pont Model G Speedster by Merrimac

HEROIC TAIL

1939 Bugatti Type 57C Atalante by Gangloff

Born in Milan on September 15, 1881, Ettore Bugatti was the son of stonemason and artisan Giovanni Bugatti, and, like his brother Rembrandt, he studied sculpture at the Brera School in Milan. He left the world of fine art at the age of 16 to join Prinetti and Stucchi, a manufacturer of motorized tricycles and quadricycles, where his passion transitioned to "all things mechanical." Ettore built his first vehicle, a motorized tricycle, a scant one year later and by 1909 had founded Ettore Bugatti Automobiles in a disused dye works that he rented in Molsheim, Alsace, today a French region on the hilly border with Germany.

Bugatti wasted no time indulging his creativity, and, beginning with the launch of the 1909 Type 10, every Bugatti touring and racing car prioritized speed, beauty, and economy of form. Although Ettore Bugatti did not regard himself as an artist, he was no less a refined craftsman than his father or brother. And like them, Ettore was a visionary, conjuring forms and using the drafting table or workbench to bring them to life. He was also a functionalist who believed that purpose should always guide form and would continually refine his mechanical designs before applying them to the production of vehicles. A tireless inventor, Ettore's ideas yielded exceptional designs that brought about even more new ideas. And if he became frustrated by a complex design or unsatisfied with the quality of his output, he designed and built custom tools to address any problems.

Ettore Bugatti was enamored of horses, and his early automobile body designs were often inspired by the classical European horse-drawn fiacre. He later described his cars as *pur sang* (French for "pure blood") after the thoroughbred horses in which he perceived undiluted power, beauty, and speed–qualities he also sought to embody in his automobiles. And, like with any thoroughbred, Ettore believed the best way to test his creations was on the racetrack. If a car performed poorly, it was modified or discarded in favor of an improved design. The cars that proved to be competitive became the models on which future technical innovations were based.

Just prior to moving his family from Cologne to Molsheim in 1909, Ettore's first son, Jean, was born. Growing up at the family's Molshiem complex, Jean Bugatti came of age among the engineers and draftsmen at the Bugatti factory. In 1927, at the age of 19, Jean designed the fiacre body for his sister Lydia's Type 40 and later went on to style an array of coachwork for his father's cars that would establish him as a capable designer in his own right. He also proved to be a talented engineer, and by 1930 Jean had not only created the Profilé body style that was a precursor to the Bugatti Atlantic but had also contributed to the development of the Bugatti eight-cylinder twin-overhead camshaft engine. Much like his father, Jean combined mechanical knowledge with an astute aesthetic sensibility. As a stylist, he was an innovator and freethinker who was eager to take creative risks, successfully interpreting the Art Deco style of the day, which favored lean, efficient shapes and streamlined geometries. Before the age of 30, Jean Bugatti would prove himself as one of the world's premier coachwork designers.

Throughout the 1930s, as the Great Depression forced automakers to adapt to a changing marketplace or perish, Bugatti decided to standardize production. Amid the diminishing luxury automobile market, Jean Bugatti introduced the Type 57 touring and sports cars, which were based on a single versatile chassis and robust twin-camshaft engine derived from the single cam Type 49. Between 1934 and 1939, a total of 660 Type 57s were produced in both standard and sport (lowered, short-wheelbase) versions called the 57 and 57S if un-supercharged and 57C and 57SC if fitted with a *compresseur*–French for "supercharger"–and distinguished by the "C" in the model designation. The Type 57 was the first car built under the direction of Jean Bugatti, who had assumed a more prominent role in the automobile business while his father was spending an increasing amount of time in Paris on his Autorail project. Following a factory strike in 1936 that led Ettore to self-exile in Paris, Jean took

The rakish profile of the Bugatti Atalante is enhanced by the sweeping tail and distinctive paint scheme.

over management of Mosheim and oversaw the refinement of Bugatti "standard" coachwork that enabled it to reach new heights. As the successor to the tradition of creativity and ingenuity established by his father, Jean would be responsible for designing some of the most elegant Type 57 models produced, including variants such as the unparalleled 57SC Atlantic, Aravis, and Atalante; and the Type 57G Tank, which won the 1936 French Grand Prix and 1937 24 Hours of Le Mans.

Jean's designs consistently challenged the boundaries of speed and style and were vital to the company's success in the interwar years. Often ranked among the sportier of the Type 57 variants, the "Atalante" was named after the Greek heroine Atlanta. It had a two-door coupé body similar to the revolutionary Atlantic, but without the Atlantic's riveted spine or split windshield. Of the 17 Bugatti Atalantes constructed, chassis Number 57828 has long been a part of the Petersen Automotive Museum's collection. A type 57C, it is equipped with a supercharger that enables the engine to generate a remarkable 160 horsepower. It is one of just three Atalantes that were bodied by Swiss coachbuilder Georges Gangloff in the "long tail" style with a roll-back roof and the only one of them to feature chrome trim on the sides of the body. This Atalante was delivered to its original owner, Orau du Pont, on May 30, 1939, at a cost of approximately $8,500 (the approximate equivalent of $156,000 today). At the time of its completion, it was regarded as one of the high points of both Bugatti design and manufacturing.

Sadly, Jean Bugatti was killed in a crash in August of 1939 while piloting a Type 57G on the company grounds, a loss that reverberated deeply throughout his family as well as the entire Bugatti enterprise. Jean's death would also mark the beginning of several years of misfortune that would eventually lead Ettore Bugatti to sell his company under duress, during the German occupation of France, for nearly half its value. It was little consolation that Ettore Bugatti was able to reclaim his factory in 1947, a mere two months before his own death. – *JH*

READY TO POUNCE

1957 Jaguar XKSS

In 1950s California, the automobile was king. It defined the region's infrastructure, its culture, and the layout of its cities. Automobile manufacturers both foreign and domestic jumped at the chance to build the sleek, fast, and modern cars that they hoped would populate the ever growing stretches of America's roads and highways. The sun-bleached streets of Los Angeles served as an open invitation for drivers to test the performance of sports cars like Ferrari, Porsche, and Delahaye that began to find their way into the area during the early 1950s. And with the new breed of Hollywood stars not afraid to spend their substantial earnings on flashy cars, the region became known as the best place to be seen in anything new and sexy. William Lyons, the founder of British car company Jaguar, recognized the potential of this market and capitalized on it.

Having already achieved some of the most glorious racing victories of its time, Jaguar realized that cashing in on the American market with a range of road cars was essential to make the kind of profit that would secure its future. But the firm had an

The D-type heritage of the XKSS is readily apparent in the curvaceous coachwork.

interesting problem because, when it pulled out of racing, there remained a batch of 25 unsold D-type racing cars that would quickly become obsolete and unsaleable. Having spent a great deal of money to build these cutting-edge vehicles, Jaguar did not want to take a financial loss by simply writing them off. So it looked across the Atlantic at the thriving American car market and decided to convert any leftover D-Types into road cars to more easily sell them. This ingenious decision would leave the motoring world one of the most beautiful, exclusive, and collectible sports cars of all time, the Jaguar XKSS.

Though it was for a time overshadowed by the more common and accessible E-Type, the XKSS has come to be regarded as one of the pinnacles of Jaguar design. Even more voluptuous than the iconic E-Type, the XKSS had a combination of power and style that made it the perfect dual-purpose sports car. Although it was never intended to be a serious road car, the D-Type was conceived during a time when the line between a road car and a race car was decidedly blurry. While other mid-1950s sports/racing cars such as the Ferrari Monza, Porsche 550, and Aston Martin DB3S could be driven on city streets if their

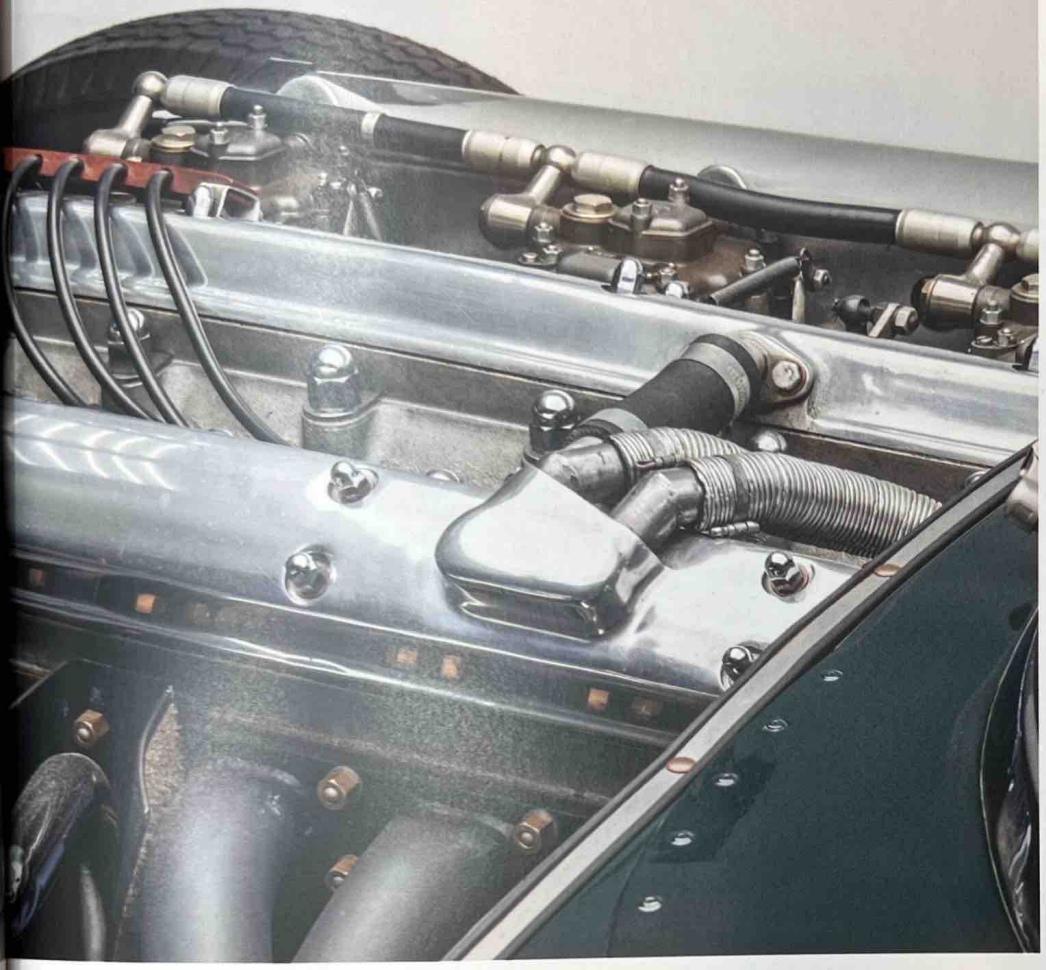
courageous drivers desired to, they were even more at home screaming full throttle down a racetrack. It was a genre of race cars for the road that included the D-Type and its derivative, the XKSS, a barely disguised Le Mans-winning race car converted for street use.

The D-Type Jaguar was designed in 1953 by British aerodynamicist Malcolm Sayer who had also styled the company's C-Type racing cars. While the D-Type shared certain styling elements with its predecessors, it was drawn with a much lower profile that was made possible because of a dry-sump engine lubrication system that did away with an oil pan and reduced the overall height of the engine. Sayer sculpted the D-Type's body panels around this profile into graceful curving arcs that flowed around its chassis and wheels. The efficiency of the design was proven in tests during which it was demonstrated that the only essential improvement needed was a fin on the rear deck to improve the vehicle's stability at high speeds. This outstanding streamlining, combined with a powerful and reliable engine, made the D-Type virtually unbeatable, as proven by Le Mans wins in 1955, 1956, and 1957. And although Jaguar pulled its D-type from racing shortly after the last of these victories, the fun did not have to stop for XKSS owners.

Conversion to the XKSS, or "XK Super Sport," began during about 1956 and, because so few changes were done to the original D-Type's design, could be achieved at very limited expense. Some of the adaptations for road use, such as turn signals and bumpers, were needed to comply with safety regulations of the day. Other modifications like the addition of a luggage rack, opening doors, fold-back top, and a full-width windshield were needed to civilize the car for road use. The company also removed the fin used by the D-Type in racing. But even with these modifications, the XKSS remained a Le Mans racing car at heart, employing a 3.4-liter version of the twin-cam engine that, in its basic form, also powered Jaguar coupes and sedans. Thanks in part to a higher compression rating than that of its roadgoing siblings and the use of special Weber carburetors, it produced a remarkable 250 horsepower. And with its race car-like combination of excellent aerodynamics, light weight, and powerful engine, an XKSS could reach a top speed of approximately 150 miles per hour, fast even by today's standards and virtually unheard of when the car was introduced.

Destined to be rare because the number of cars to be constructed had already been determined by the low number of D-types left over at the Jaguar factory, just 25 XKSS Jaguars were scheduled to be built. But Jaguar's plans were partially foiled when, on February 12, 1957—just six weeks after William Lyons was knighted—a fire broke out in the Browns Lane factory. The fire was said to have started in the stockrooms before spreading throughout the factory, and a large number of cars in various stages of production were either damaged or destroyed. Unfortunately, nine of them were D-Types that were slated to be transformed into XKSS models, and, ultimately, just 16 of the planned 25 were produced.

Steve McQueen often performed the Jaguar's mechanical work himself, despite the car's temperamental racing characteristics.



> **"... [STEVE] MCQUEEN REPORTEDLY LIKED TO DRIVE THE CAR TO ITS LIMITS ... ANY POLICE OFFICER WHO COULD CATCH HIM WOULD GET A FREE STEAK DINNER."**

Likely the best-known XKSS to escape the fire and make it onto American soil was the car once owned by American actor and amateur racing driver Steve McQueen. It was originally purchased by noted Riverside Raceway designer James Edward Peterson and was later sold to TV personality Bill Leyden, from whom McQueen bought it. At first painted ivory and fitted with a red interior, the car was resprayed a more traditional British racing green for McQueen, who also commissioned noted hot rod builder Tony Nancy to re-upholster the interior in black leather and had popular counterculture artist Von Dutch fabricate a custom glovebox door for it.

Once finished, McQueen reportedly liked to push the car to its limits. According to one legend, any police officer who could catch him in the Jaguar would get a free steak dinner. And while no steak dinners were known to have been given out, it was reported that McQueen received so many speeding tickets in the car that his driver's license was almost suspended twice during his first year of ownership. He eventually came to consider the car too rare and valuable to race, and he sold it in the early 1970s to famed collector Bill Harrah, only to buy it back years later. McQueen then kept the car until his untimely death from cancer in 1980.

Today, the XKSS is considered one of the world's most desirable automobiles, a ranking that has created so much demand for the model that in 2016 the Jaguar factory resumed production–if only briefly–of the car, building nine "new original" XKSS Jaguars to bring the production total to the intended 25. And while they may not have been built in the 1950s, they were constructed the way every other XKSS was constructed, by hand with the greatest care and attention to detail. Had Sir William Lyons been with us today, we think he would have approved. — *KF*

STAR POWER

1927 Rolls-Royce Phantom I Town Car by Hooper

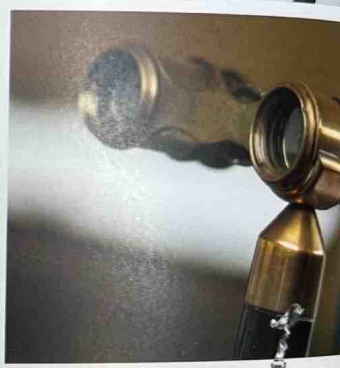
Today the name Town Car is almost exclusively associated with Lincoln, but that was not the case for most of the 20th century. From the first use of the term in 1907 through much of the 1970s, the designation "town car" referred to a vehicle of any manufacture that was fitted with a body having an open chauffeur's compartment and an enclosed passenger area. Like most practices involving early automobiles, the idea of a driver sitting in the open while his passengers sat in enclosed comfort began with the horse-drawn carriage. Elegant and dignified, cars bodied in such a way were originally intended for local use on formal occasions and were almost always the most expensive body style offered by a manufacturer. In keeping with the "upstairs/downstairs" nature of the town car, passengers enjoyed a plush seating area trimmed with expensive fittings, while the driver was obliged to sit on hard-wearing leather upholstery and was often provided no top for protection from the elements.

The large majority of early horseless carriages were not powerful enough to accommodate heavy coachwork and were at first barely larger than the horse-drawn carriages they replaced. These vehicles could provide only the passengers with a comfortable enclosure that kept out the elements, road dust, and prying eyes, while their chauffeurs were expected to endure the unpleasantness of open-air motoring regardless of prevailing weather conditions. As time passed and automobiles became more civilized, powerful, and heavier, the chauffeur's greatest challenge went from keeping themselves clean and dry to maneuvering the cars in dense traffic. And they were always expected to maintain a high standard of professional decorum–the families that employed them often sent their drivers to vocational schools to learn how to drive and care for whatever new automobile they were going to handle.

Rolls-Royce co-founder Henry Royce was anxious to see that the chauffeurs who piloted his cars were aware of their idiosyncrasies and maintenance requirements after witnessing the number of unnecessary repairs his mechanics had to perform on vehicles that were driven carelessly or maintained improperly. When not driving, chauffeurs were expected to spend their time in the garages washing the cars, polishing the trim, topping off fluids, repairing flat tires, and resolving any mechanical troubles. It was a role that highlighted the class distinctions that defined one's position in society that were made evident on each side of the partition: employers enjoyed all the comforts of motoring without having to concern themselves with the often unpleasant realities of actually driving.

During the heyday of the chauffeur from the late 1890s through the 1930s, the kinds of cars they tended were as varied and diverse as the tastes and preferences of their fussy employers. And even though their garages may have shared space with roadsters, coupes, cabriolets, phaetons, and sedans, town cars were unquestionably the stand outs. In an era when pomp, decorum, and ceremony impacted one's preparations for even the most basic outing, it was of paramount importance that town cars be especially regal and sophisticated because they served as a personal backdrop for their well-heeled passengers at many of the high-profile venues where they were likely to be seen–and judged–by their social peers. A regular production Ford Model A town car, for example, might be adequate for a rising star like Joan Crawford to run an off-studio errand during the early 1930s, but a Duesenberg with town car coachwork by Murphy of Pasadena was a must for a superstar of the era like big-band leader Paul Whiteman arriving at a premier. And for a dashing man-about-town like Fred Astaire, a Rolls-Royce was the ideal choice.

Even though all town cars shared the same open-in-the-front, closed-in-the-rear body configuration, it was rare for any two to be exactly alike. Since most early town cars were built for customers who were wealthy enough to have vehicles made to their own highly individual specifications, the appearance of early town cars through the mid-1930s varied far more widely than that of those built later in the pre-World War II era. Basic differences could include the number of windows on each side, a glass partition that could slide sideways or lower out of sight, and the color and composition of the material that covered the roof. The coachbuilder chosen by the original owner of the Astaire Rolls-Royce was Hooper, which also constructed the coachwork on most of the Rolls-Royce automobiles in Queen Elizabeth's



Royal Mews. Why Fred Astaire acquired a second-hand Rolls-Royce when he could have afforded several new ones may never be known, but it was the kind of vehicle that he and his sister Adele could easily have been imagined stepping into after a theater performance in London, where they were the toast of the town.

Like with most other town cars of the 1920s and '30s, the Fred Astaire Phantom I was upholstered in durable leather in the front and sumptuous cloth in the rear, which was also fitted with fine woolen carpets dyed to match the dominant shade of green of the upholstery and delicate silk blinds on every window (including the division window behind the driver), one or all of which could be pulled downward for privacy. The rear compartment was equipped with silver-plated fittings, "his" and "hers" English silver vanity sets, silver bud vases, and two walking sticks, one fitted with a telescope, the other with opera glasses. A speaking tube enabled passengers to give orders to the driver without opening the division window. And despite the car's necessarily great weight, its 7.7-liter, six-cylinder engine was so powerful that Fred Astaire would likely never have been passed by another car unless he directed the chauffeur to allow it.

Astaire owned the car until 1950 and used it in London, New York, and Los Angeles. At one point during its time in New York, American importer J.S. Inskip was asked to modernize the car slightly by fitting a long and narrow metal panel adjacent to the running board on each side to conceal the frame, which had by the late-1930s become standard practice for new cars. Astaire reportedly brought the Rolls-Royce with him to Los Angeles some time later before ultimately selling it. What he replaced it with is not known, but had Fred Astaire been with us in modern times, he may have been obliged to employ a limousine service when the need arose to travel locally. And although modern cars can drive farther and faster and offer the kind of luxury that was unheard of a century ago, nothing offered today can compare to the style, elegance, and presence of a Rolls-Royce town car of the classic era. It was a time in history when "getting there" was secondary to "arriving," and personal style meant everything. — *LK*

The plush passenger compartment of Fred Astaire's Rolls-Royce offered sumptuous accommodations for two.

1927 Rolls-Royce Phantom I Town Car by Hooper

UNMISTAKABLY PORSCHE

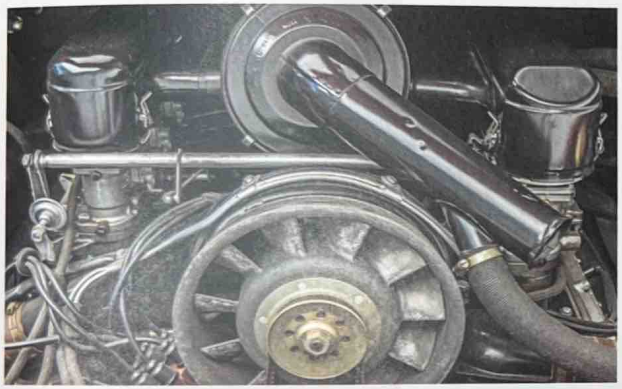
1964 Porsche 901

The name "Porsche" holds a special meaning for car enthusiasts, standing for superlative performance and engineering integrity. And of all the models that have been produced, none more perfectly embodies the Porsche spirit than the long-lived 911. Undeniably the most influential and popular Porsche model, this charismatic classic has a development history that began more than a half century ago.

By the early 1960s–and after almost two decades of commercial success with their first car, the 356–Porsche had established a reputation for building quality vehicles that offered outstanding performance. But Ferry Porsche, son of Porsche founder Ferdinand Porsche, realized it was time for something new–a major redesign of the 356 with a new look and more power. In September of 1963, at the Frankfurt Motor Show in Germany, Porsche introduced the world to the 356's successor and immediate precursor to the 911, the all-new 901.

The development of what was first called the 901 was based on an already proven concept of an air-cooled, rear-engine sports car with fastback design. But this time the engine boasted half again as many cylinders as the model it was to replace, becoming Porsche's first six-cylinder production car. With two liters of displacement and 130 horsepower on tap, it was a significant improvement on the 75-horsepower rating of the 1.6-liter, four-cylinder unit of the 356. And flexibility was enhanced even further with the availability of either a four- or five-speed manual transmission. Top speed was a respectable 131 miles per hour, and it took a mere 8.5 seconds for the car to accelerate from zero to sixty miles per hour.

To keep traditional Porsche buyers interested, while at the same time expanding the 901's potential market, the new model retained the basic layout of the 356 but was drawn slightly larger and offered greater comfort than its predecessor. Ferry Porsche entrusted the design of the new model's body to his son Ferdinand Alexander Porsche. And while the 901 bore a resemblance to its predecessor, it was altogether a crisper, cleaner design, with greater interior space, 50 percent more glass area, less bulbous styling, and a lower waistline. It featured a four-



Though its Porsche heritage is instantly recognizable, detail differences abound between the pilot production Porsche 901 and the later 911.

seat configuration with rear seats that were perfectly sized for children but could be used by adults in emergencies–a capability that earned the car a "two-plus-two" designation.

Ultimately, a total of 82 Porsche 901s were built, including two experimental cabriolets fabricated by Karmann. They were used for testing and exhibition at auto shows. But, like other prototypes and pilot production cars from throughout modern automotive history, no two were exactly alike. They were constructed by hand during an essential process that enabled production engineers to evaluate how easily the parts would come together at the assembly stations and how different combinations of parts would both enhance performance and hold up under testing. And while they may appear similar to their 911 descendants, the number of differences that improved product quality and drivability during the months leading up to the beginning of serious quantity production were legion.

It seemed that everything was going right for Porsche until one of the 901 prototypes captured the attention of a major French manufacturer when it appeared at the Paris Motor Show in October 1964. As soon as executives of the auto manufacturer Peugeot learned of the new Porsche's "901" designation, they objected on the grounds that they had the exclusive worldwide rights to every three-digit numeric model designation in which zero was the middle digit. Porsche's solution? Simply change 901 to 911. This would eliminate the need to design a new numeral and enable the maker to utilize at least the small 9s and 1s it had already created to badge the new cars. No cars bearing the 901 model designation were ever sold new to customers. But since there was nothing preventing Porsche from using the "901" designation internally, its flat-six engine retained the name, which was stamped into the blocks of early production 911 engines.

As with the 356, an emphasis was placed on marketing the 911 to the United States, and the car was formally unveiled to an expectant American audience in February 1965. It was an immediate hit, despite being priced at $6,000–a figure that represented a significant increase over the $4,195 cost of a 356. Since its debut in 1963, more than one million 911s and their variants have been built, from the 901 through the 21st century's 991, and according to Porsche, an impressive 70 percent of them are still roadworthy. Its popularity is not hard to explain and was best described by Ferdinand Porsche himself as "…the only car you could drive on an African safari or at Le Mans, to the theatre or through New York City traffic." An impressive claim, especially because it has proven to be true.

The Porsche 901 in the collection of the Petersen Automotive Museum was donated in 2000 following a painstaking restoration that returned it to as-new condition, complete with all the important differences that would be regarded by many as "incorrect" for an early 911, yet distinguish it as a genuine pilot production 901. Included among the differences are engine bay decals, carburetors, engine castings, exterior and interior trim, windshield wipers, instrumentation, and countless other subtle details that would likely go unnoticed by the casual observer but distinguish the car as one of the first of a line of vehicles that are as valuable and interesting to collectors as they are rewarding and exciting to drivers. — *AN*

IT'S A DOOZY

1933 Duesenberg SJ Convertible Coupe by Murphy

One of the most glamorous and spectacular cars of the classic era, the renowned Duesenberg Model J came about as a result of two brothers with a shared vision and an unwillingness to settle for the ordinary. The story began when German-born Frederick and August Duesenberg immigrated to the United States in 1885 and took the first tentative step toward becoming a manufacturer by building bicycles, which they also raced. And while many of the bicycles were later equipped with engines of the brothers' own manufacture, their first foray into full-size automobile production came in 1906 with the creation of the Mason, which was named after their financial backer, attorney Edward R. Mason.

In a day when unreliable vehicles dominated the industry, the Mason earned a reputation as being both rugged and powerful. Regardless of these qualities, only about 25 Mason automobiles were built before the company was sold in 1910. But the Duesenberg brothers had bigger plans for the future, and, despite the short-lived nature of the Mason automobile, the sustained financial support of Edward Mason enabled them to continue producing racing vehicles through 1912.

In June of 1913, the Duesenberg Motor Company was formed to create powerful engines for marine and aircraft applications. In 1916 the Duesenberg Motor Company was contracted by the US government to build eight-cylinder marine engines, as well as V-12 and V-16 aircraft engines. This early design experience contributed to the development of a prototype single overhead cam, straight-eight engine that would later become the centerpiece of their renewed focus on automobile manufacturing. By 1919 they had created the first passenger car built entirely to their own design, the Model A. Built beginning in 1921 at a manufacturing facility in Indianapolis, the new car built on their previous engineering experience and the lessons about endurance

The Duesenberg's combination of power, speed, quality, and style were unparalleled in its era.

they learned in racing. The Duesenberg Model A was among the first regular-production American cars to employ a straight-eight engine and the first ever to use four-wheel hydraulic brakes.

Like so many before them, the Duesenbergs were better at engineering than they were at accounting, and they soon encountered serious financial hardship. In 1926 they sold their manufacturing business to Errett Lobban Cord, the savvy, charismatic founder of the Cord Motor Company, who almost immediately entrusted the brothers to engineer a luxury car to rival luxurious and exotic European brands like Hispano-Suiza, Isotta Fraschini, and Rolls-Royce. To give the Duesenberg brothers the leeway to create the new model, Cord suspended production of the then-current Model X so that they could devote all of their time to the development of what Cord had envisioned would be the finest vehicle ever to have been built, the legendary Model J.

Unveiled in 1928, the Model J was immediately recognized as America's most advanced production car. Its 420-cubic-inch, straight-eight engine incorporated race-bred features like double overhead camshafts operating four valves per cylinder. And while horsepower was originally rated at 265, a supercharged SJ version introduced in 1932 was capable of producing 320 horsepower. Later, a small number of SJ Duesenbergs were fitted with twin carburetors and a special intake manifold that bumped horsepower to an astonishing 400. The car was so powerful that promotional materials of the day stated that a Duesenberg owner could be passed by another car only when they wished to be passed. With prices ranging from approximately $13,500 for the least expensive roadster to over $18,000 for a bespoke limousine, the Model J and its variants quickly became a status symbol among nobility, as well as the rich and famous.

In Los Angeles, where the relative star power of a screen idol was often signaled by the kind of car they drove, many film industry professionals–not to mention heirs, heiresses, and captains of industry–sent their cars to the up-and-coming Walter M. Murphy Co. to be fitted with bespoke coachwork. The Walter M. Murphy Company was founded in Pasadena, California, in 1920 by Walter Montgomery Murphy, the grandson of one of Detroit's first millionaires and the founder of one of the country's largest lumber companies. After serving his family's interests for nearly 15 years, Walter Murphy sold his share of the lumber business and used the proceeds to open a car dealership in downtown Los Angeles to sell the Locomobile and Simplex brands, many of which were outfitted with custom bodies from established East Coast builders such as Brewster, Locke, and Healy & Co.

Upon his grandfather's death, Walter Murphy's uncle, William, took an early interest in the Michigan automobile industry and helped to finance a number of Detroit's first automobile manufacturers. Among them was Cadillac, which was established by esteemed engineer Henry Leyland, who also later founded the Lincoln Motor Company with support from William Murphy. When Lincoln began building automobiles in 1920, William's nephew Walter was appointed the distributorship that encompassed all of California. The coachbuilding aspect of Walter Murphy's business initially began as a way to make the rather conservatively styled Leland Lincolns more desirable to his West Coast clientele. To enhance their appeal, Murphy altered the top and paintwork, giving them a more modern, dashing appearance better in keeping with the feel of the era and the part of the country in which he operated. Thanks in part to the establishment of a custom coachbuilding company, Murphy quickly became one of Lincoln's most profitable dealers, and his coachbuilding business expanded to include numerous other marques.

After several successful showings at the New York Auto Salon, Murphy's client base and reputation grew substantially, resulting in a commission from Duesenberg to body one of the three Model Js that would debut at the 1929 New York Auto Salon. Murphy's contribution was a rakish roadster that garnered a great deal of attention among both critics and attendees. Murphy's association with Duesenberg would eventually prove to be profitable, and the firm built approximately 125 bodies for the Model J chassis. Among the 14 body styles that Murphy developed for the Model J, the most popular was the convertible coupe. And yet, while more than 50 such vehicles were built, it is unlikely that any two were exactly the same. In addition to color, trim, and fabric choices, buyers could specify side- or rear-mounted spare tires, forward- or rear-hinged doors, disappearing or non-disappearing top, trunk or rumble seat, and a variety of other details. But the market for a car whose price began at $13,500–the equivalent of 25 comparable Fords–was small and quickly saturated.

In late 1931, as demand for custom coachwork began to wane, Murphy closed his dealership and the following year sold the coachbuilding department. Duesenberg continued to catalog the Model J and its supercharged variant, the SJ, through 1937, the year that Cord's entire financial empire collapsed. Overall, of the 481 original Duesenbergs built, more than two-thirds have survived. About a quarter of them are graced with Murphy coachwork, an extraordinarily high number and a testament to their enduring desirability. – *LK*

1933 Duesenberg SJ Convertible Coupe by Murphy

ALPINE GLOW

1972 Alpine A110

Thanks to the circumstances that guided their development, European cars evolved very differently from their American counterparts. While American cars were tailor made for wide, smooth roads that were so long that a motorist could drive for thousands of miles without stopping, many European roads were first laid out during the days of the Roman Empire and were built to accommodate carts and wagons that were drawn by horses traveling at a walking pace. Paved in cobblestones, gravel, or nothing at all, such roads were extremely narrow, slippery, and uncomfortable to traverse, especially in the unsprung vehicles of the day.

With time, roads between major European population centers grew in size and sophistication, but for city travel and on secondary roads, the parameters that had dictated their size for millennia could not be changed. Half-timber houses just ten feet apart from each other were there to stay. And while the roads were perfectly adequate for a horse and rider, any car used to traverse them had to be small, lightweight, nimble, and robust. So while American cars were large and lazy, European automobiles were small and sprightly and lent themselves to a kind of motorsport that emphasized speed and precision over brute force.

The end of World War II in Europe brought with it shortages, government restrictions, and a new public attitude that made small, rational cars more important than ever. Likely the best known postwar upstart was Volkswagen, but

The Alpine shared its rear-engine configuration with the Renault 4CV from which it was derived

other European countries were also doing their best to begin production of vehicles that, while economical to buy and own, also upheld their countries' individual motoring traditions. Italy had the Fiat 500, England had the Austin Seven, and France had the Renault 4CV, which had been designed in secret while the country was under German occupation.

Considering the road conditions that dictated the Renault 4CV's maneuverable size and the fuel prices that mandated its small engine, such a vehicle could only have been conceived in a part of the world where raw materials were not abundant, roads were difficult, and gas was expensive. The expectation that the car would have to thrive in the marketplace despite these realities prompted Renault engineers to unwittingly give the 4CV a built-in ruggedness that proved advantageous during the kinds of punishing racing in which the Alpine would ultimately become especially successful.

The Renault 4CV's robust nature was not lost on French garage owner Jean Rédélé, whose suitably modified versions of the basic sedan were so potent that they were able to outrace the much larger cars that clung to pre-war engineering and employed American-style V-8 engines. Like Ferdinand Porsche had done with the Volkswagen Beetle years earlier, Rédélé adapted the basic engineering of the economical and ubiquitous homegrown automobile to create a sports car that was as quick and nimble as it was familiar and serviceable.

An ingeniously designed vehicle that allowed for much creative enhancement, the 4CV proved to be the ideal basis for an entirely new approach to the kind of re-engineering that Rédélé embraced. Yet, while endearing to some, the workaday appearance of a stock Renault 4CV did not hold long-term appeal for Rédélé, and by far the most conspicuous change he made to the 4CV platform came in 1954, the year he began serious production of a vehicle that did away with the Renault 4CV sedan coachwork in favor of something lighter, more handsome, and more aerodynamic. It was a car that could be raced on Saturday, displayed at a concours d'elegance on Sunday, and driven to work on Monday.

Having christened the new car the "Alpine," Rédélé first built the bodies out of expensive, labor intensive aluminum. He later adopted that most American of materials: fiberglass. Better known in Europe as polyester, the material weighed less than aluminum, cost less, and allowed for a great deal of design creativity. Dubbed the model A106, the new fiberglass-bodied Alpine was introduced in 1955 and was soon acclaimed for its grace, low weight, and aerodynamic efficiency. Rédélé installed a five-speed transmission that enabled drivers to take better advantage of the torque band of the 1860-cc, water-cooled, inline-four engine.

It would have been difficult to think of a car better suited to the kind of competition that mandated accurate timing, precision maneuvering, and unforgiving road surfaces. In the same way that virtually any American car of the day could be considered the roadgoing equivalent of a machete, the Alpine could be considered the roadgoing equivalent of a scalpel. It sliced through the countryside with great aplomb, yet could hold its own against the much more powerful cars with which it competed at some of the most famous races in the world. But in spite of the Alpine's competence on the road, Rédélé knew that he had to keep developing it to stave off some of the stiffest competition.

Appropriately updated, the subsequent A110 embodied the best possible combination of features and proved so successful that it won outright or achieved class victories in Le Mans, the Monte Carlo Rally, the Mille Miglia, and dozens of other races. But admiring such a vehicle from a distance imparts only a portion of the story. The car is so quick and nimble that drivers often compared it to a go-kart. Oversteer is minimal despite its rear engine configuration, and the 175-horsepower, inline four-cylinder power unit could propel the Alpine to over 100 miles per hour—astounding performance for a vehicle with a 1860-cc engine.

The Petersen Automotive Museum's Renault Alpine was factory-prepared for use in Group IV competition and is the very vehicle driven by Jean-Pierre Nicolas and Bernard Darniche in the 1973 Ronde de Chamonix and the Ronde de Serre Chevalier. Together they contributed to Alpine's successful 1973 season, which included a win at the World Rally Championship, where it was also piloted by Nicolas and Darniche. While all A110 bodies were constructed of fiberglass, factory team cars, like this example, were made even lighter by removing any unnecessary weight and replacing standard trim such as front and rear bumpers with plastic components. Nearly 300 pounds lighter than its competitors, the A110 dominated rally racing in the early 1970s and accumulated enough victories to make Alpine the winner of the 1971 International Championship for Manufacturers. But it was only what one might expect from Monsieur Rédélé, a gentleman racer with an affinity for style and a drive to succeed. The Alpine A110 was produced from 1961-1977, and while other cars may have been more grandiose and exotic, none could match its performance or presence. It was a car that did everything right. — *LK*

CHASING FREEDOM

1966 Ford Thunderbird Convertible Driven in *Thelma & Louise* (1991)

It is one of cinema's most memorable and recognizable scenes: Thelma (played by Geena Davis) and Louise (played by Susan Sarandon) drive a 1966 Ford Thunderbird convertible off the edge of the Grand Canyon, with the final freeze frame of the car in mid-air before it plummets into the canyon below. The screen fades to white before the credits start to roll.

Released in the summer of 1991, *Thelma & Louise* details a few days in the relationship of the two title characters. One of them, Louise, is a spunky waitress while the other, Thelma, is a housewife under the thumb of a controlling and disrespectful husband. The two friends head out on an impromptu fishing trip to a cabin in the mountains in order to take a break from their dreary lives in Arkansas. But their plans go horribly wrong when a man attempts to rape Thelma in the parking lot of a roadhouse bar. Louise shoots the assailant, killing him and triggering the duo's fateful run from the law through multiple states and to the edge of the Grand Canyon where their final moments play out.

The movie was a critical and commercial success and received six Academy Award nominations. Ridley Scott was nominated for Best Director, and both Davis and Sarandon received nominations for Best Actress–one of the few films with two leads nominated in the same category. And thirty-year-old Callie Khouri won the Oscar for Best Original Screenplay, the first time since 1932 that a woman won as a solo writer. In 2016 the United States Library of Congress selected the film for preservation in the National Film Registry, finding it "culturally, historically, or aesthetically significant."

A study in the power of cinema to highlight disparities between socioeconomic groups at a moment in time, the movie was initially subject to controversy because it depicted men in a negative light. But despite the criticism, *Thelma & Louise* has come to be regarded as a landmark feminist film because it acknowledged and highlighted the societal differences that women experience in their daily lives in a way that was easily relatable to audiences. And while exciting scenes depicting a robbery, shootouts, and car chases kept theatergoers on the edges of their seats, the film was far more significant than the premise of two women going on a crime spree would suggest.

Thelma & Louise was fundamentally the story of everyday women fighting back against sexism, disrespect, and sexual assault, issues that plague women in real life. And one weapon that they wielded jointly was a large and ponderous Thunderbird convertible that was driven so competently and deftly, it laid to waste the stereotype that women are helplessly incompetent behind the wheel of a car, especially one as heavy and difficult to handle as a mid-1960s luxury car. The use of such a vehicle to frame the action of a woman "picking up" an attractive man challenged expectations of gender roles, giving the characters even

The sleek Thunderbird convertible complemented the extroverted spirit shared by main characters Thelma (Geena Davis) and Louise (Susan Sarandon) in *Thelma & Louise*.

more on-screen power and presence.

But *Thelma & Louise* is also, at its core, a road trip movie–a category of film in which the main characters embark on a journey in an automobile, typically to escape their everyday lives. Lawlessness and violence frequently figure in these films, and they are often populated by desperate characters. The settings include not just the close confines of the car but also the scenic beauty of the country roads being traveled and the restaurant booths and motel rooms where the lead characters reveal their backstories to the audience. These trips are as much a voyage of self-discovery as they are a journey toward a destination. Through most of cinematic history, road trip movies have focused on themes surrounding masculinity and have therefore featured male leads. The story of a road trip featuring female characters, *Thelma & Louise* turned the genre on its head, paving the way for other films of this type with female leading characters and showing that strong women in strong roles could be wildly popular with audiences and, by extension, profitable for the studios.

Essential to proclaiming the movie's underlying message of the joys and responsibilities of breaking free from a humdrum existence exacerbated by overbearing male figures is Louise's vintage 1966 Ford Thunderbird, which features so prominently throughout the film that it could almost be considered another leading character. The car is an ideal visual metaphor for Louise's free-spirited nature and becomes a virtual extension of her extroverted personality. Its turquoise color provides a pleasing contrast to the warm, red desert as the pair of women head west to Mexico, complementing the aura of cruising on a road trip in a vintage car. It also has an ample back seat, allowing Thelma and Louise room to accommodate the J.D. character, a young drifter and thief played by Brad Pitt, who they pick up en route. And to vintage car aficionados familiar with how mechanical systems on a quarter-century-old car are anything but reliable, the use of the vehicle also gave a subliminal acknowledgement of the characters' hidden capabilities at auto mechanics, a skill that would be essential in such a context.

In addition to suiting the film's plot and the characters' personalities, the choice of a Thunderbird convertible was a matter of practicality for the director and camera operators because it permitted the actors to be more easily filmed when the top was down and heightened the tension of being trapped in an enclosed space when the top was up. In total, five separate 1966 Ford Thunderbirds were used in the making of the film. One was used for exterior shots; two were used for stunts–including an original cut of the final scene that shows the car plummeting into the Colorado River; one was a back-up vehicle; and one–the Petersen Museum car–was used for close-ups. And in an unusual turn for the movie industry, the cars had no custom touches like mag wheels or flashy graphics. The Thunderbird is special enough looking like it has just driven off the showroom floor of a Ford dealer. — *AN*

1966 Ford Thunderbird Convertible Driven in *Thelma & Louise* (1991)

POWER & PURPOSE

1923 Mercedes 28/95 Targa Florio

Even before its merger with Benz in 1926, Mercedes was one of the few manufacturers building vehicles that would today be called supercars. In addition to offering automobiles of average size that were relatively affordable, Mercedes also built extremely large vehicles whose power, engineering, and exclusivity made them the envy of virtually every motorist–and manufacturer–of the day. The top of the range in 1923 was the imposing 28/95, which was offered from 1914 through 1915 (when production was suspended because of World War I) and again from 1920 through 1924. Built in extremely limited numbers, its outstanding performance and rakish good looks conferred a great deal of prestige upon both the manufacturer and any motorist fortunate enough to own one.

One of the best performing cars of its day, the imposing 28/95 was fitted with a massive 7.2-liter, six-cylinder, single overhead cam aircraft engine adapted for road use. The engine of the Targa Florio was rated at 28 horsepower (for German tax purposes) but actually delivered a respectable 95 horsepower thanks to its advanced single overhead camshaft design. Designed to power World War I-era aircraft such as the Zeppelin Staaken R.VI bomber and Albatros D.III fighter, the engine was equipped with a single overhead camshaft that actuated inclined valves for maximum efficiency. Engineers fitted twin Zenith carburetors to improve fuel delivery, and exhaust was directed through outside flex pipes, which enhanced the car's sporting appeal while removing the primary source of waste heat from the engine compartment. Unusually light for its size, the engine weighed less than 400 pounds. Torque was a high 315 lb-ft, an almost unheard-of number in an early 1920s automobile.

Drawing on their experience with supercharged aero engines, Mercedes engineers equipped the short-wheelbase racing version of the 28/95 with a blower mounted at the back of the engine. The forced induction system worked well and enabled noted race driver Max Sailer to achieve a first-in-class victory (and second overall) in the 1921 Targa Florio. Reliability was so good that Sailer was able to drive his car from Stuttgart, Germany, to Italy, compete in the race, and drive it back to the factory with no recorded problems. A similar racing success one year later prompted Mercedes to call its short-wheelbase, un-supercharged production model the Targa Florio. Directly hearkening to the seriousness of the Mercedes's purpose, sharply angled fenders were fitted to enhance its purposeful look, and both halves of the windshield could be raked back or folded all the way forward depending on the prevailing road conditions and needs of the occupants. The folding top could be removed entirely.

The roadster in the collection of the Petersen Automotive Museum (chassis number 26721) was commissioned by the American Mercedes Company of New York City in 1923 and delivered in 1924. Two years later, it was discovered on the lot of Isotta Motors in New York, likely having been taken in trade on a luxury car from another manufacturer. Not wanting to have one of its top prestige models languishing conspicuously on the used car lot of a competing dealer, the car was immediately repurchased by the American Mercedes Company. A subsequent owner eventually brought it to Los Angeles and parked it in a storage garage in Wilmington until it was discovered by collector Harry Johnson, who purchased and restored it. In 1986 renowned NBC Radio orchestra leader Don Ricardo acquired the car and retained it until his death in 2001, after which time it became a part of the Margie and Robert E. Petersen Collection. After being repainted and repaired where necessary, the Mercedes was driven in the 2008 Pebble Beach Tour d'Elegance, then shown at the Pebble Beach Concours d'Elegance three days later.

Driving this Mercedes is a rewarding experience and as simple as could be expected for a car approaching 100 years of age. After manually pressurizing the fuel tank and adjusting the throttle, choke, and spark advance, a simple turn of a key and push of a button are all that is needed to bring the engine to life, and it quickly settles down to a slow, if noisy, idle. Once underway, the car is easy to maneuver despite its size, although care must be taken during braking and acceleration because the pedals for each are in the opposite positions of those on today's automobiles. Nor is the horn button where one would expect it to be. Rather than being positioned predictably in the center of the steering wheel–and because the car is right-hand drive–it is mounted on the inside of the coachwork just below the beltline to the right of the driver's forearm.

Double-clutching is advisable whether changing to a higher or lower gear, a necessity that would confound the operators of modern automobiles, virtually all of which are equipped with some form of automatic transmission that obviates the need for a mechanically actuated clutch. Fortunately, the engine's enormous torque makes downshifting rarely necessary.

Yet while experiencing the car as its driver is a thrill, it is equally as exciting to be a passenger, whether sitting shotgun to the left of the driver or perched in the snug, one-person rumble seat. Completely concealed when stowed, the occasional rear seat is accessed through a two-panel hatch in the rear deck that requires a bit of ingenuity to manipulate. And while the top of the windshield is directly in the front- seat occupants' lines of sight, the rear-seat passenger can easily see over it for a true wind-in-the-face thrill. But being a fair-weather car, the Mercedes's windshield would normally be folded down and out of the way except under the most extreme conditions. Doing so provides the driver with a welcome opportunity to secure wind protection by donning period goggles and a leather helmet; the best accoutrements imaginable to have the most authentic motoring experience possible and truly maximize one's enjoyment of the ultimate sporting car of its era. — *LK*

The severely angular 1923 Mercedes was built three years before the company's merger with Benz.

ITALIAN ACCENT

1953 Cadillac Series 62 by Ghia

Italian leadership in vehicle design first became apparent during the days of the Roman chariots, and as the horse-drawn carriage era gave way to the age of the automobile, a definitive national style characterized by simplicity and unpretentious elegance evolved. During the formative era of motorized transportation in the late 1920s, Italian designers and coachbuilders had helped guide the evolution of the automobile's form from a collection of disorganized parts into a single, visually appealing unit. Following World War II, advances in automobile engineering allowed designers and coachbuilders to further concentrate their efforts on perfecting this early work, and by 1947 Italian body design came to be exemplified by an elegant concision that was as appealing at a concorso d'eleganza as it was on the Autostrada. It was a style that influenced the entire industry.

Conceding to the inventiveness of European coachbuilders even before the Second World War, many manufacturers throughout the world appreciated the advantages of working with such artisans to create special vehicles that would make a statement in the press and at auto shows. Even Ford engaged an Italian carrozzeria (Pinin Farina) to design a cabriolet body for a 1932 V-8 chassis that it wanted to consider for production. Private clients who appreciated the simplicity and performance of American automobiles like Dodge and Plymouth also hired Italian coachbuilders to create bespoke bodies for vehicles, and their collaborations yielded a variety of stylish designs that embodied a European flair that was routinely shunned in America. The custom coachwork industry thrived until the outbreak of the war, after which an even more basic aesthetic came to be considered appropriate for the austerity of the times. The shape was exemplified by one significant Italian car, the 1947 Cisitalia by Pinin Farina, which set an aesthetic standard for virtually every automobile that followed.

By the mid-1950s, the comfort, quality, and style of even the cheapest cars had risen to a point where the demand for full custom coachwork had all but disappeared. Although most American coachbuilders did not survive into the postwar era, an unusually large number in Europe persevered well into the

“THE [GHIA-BODIED CADILLACS] COMBINED THE EXOTIC LOOKS OF ITALIAN-BODIED CUSTOMS WITH THE POWER, RELIABILITY, AND EASE OF MAINTENANCE OF AMERICAN VEHICLES.”

Devoid of fins, the low-slung Ghia body bears little resemblance to other Cadillacs of its day.

1950s, making it possible for the shrinking number of buyers seeking absolute individuality to order something genuinely bespoke. Coming to terms with the shrinking market of private clients, automobile body makers adapted to the decline in orders for one-of-a-kind cars by creating small series of vehicles on spec for auto shows. Many of these vehicles combined familiar and reliable American mechanical components with rakish Italian lines and were intended to entice manufacturers into engaging the coachbuilders' design services or contract with them to manufacture small runs of ultra-limited-production prestige cars.

Seeking a new and sophisticated look, a significant number of Detroit manufacturers made the decision to collaborate with Italian coachbuilders to develop experimental cars to test the American market. Nash was among the first to evolve an experimental car into a production vehicle with its series-produced 1951 Nash-Healey, and Chrysler soon followed with a small string of hand-built specials that were bodied by Ghia and sold only in France. Boldly sculpted and largely unadorned, the early-1950s Ghia style was appreciated by many and was interpreted on vehicles as small as the Fiat 1100 and as large as the Chrysler Imperial. Typical of many Ghia-bodied vehicles of the period, the racy, horizontal stance of the coachwork was punctuated in the front by deeply inset headlights that flanked a grille rendered in an "egg crate" pattern.

One of the most famous Italian automobile

An Italian interpretation of an American icon, the Ghia-bodied Cadillac in the collection of the Petersen Automotive Museum is one of a pair built using the well-known "mix and match" process that involved taking the production chassis of an existing manufacturer and fitting it with the scratch-built body of a specialized professional coachbuilder. Mounted on convertible chassis for maximum rigidity, the finished vehicles combined the exotic looks of Italian-bodied customs with the power, reliability, and ease of maintenance of American vehicles. Both had four headlights, predating the American craze by a full five years and were extremely large by European standards. They were reportedly ordered by the New York Cadillac distributor. One of them was delivered new to John Perona, proprietor of the legendary El Morocco nightclub in Manhattan, and appeared on the cover of the January 1955 issue of *Road & Track* magazine. Not as widely publicized, the car in the Petersen Museum's collection is known to have been in the Los Angeles area in the mid-1950s. And while it was once rumored to have been owned by silver screen legend Rita Hayworth, a connection between the star and the car has yet to be verified.

Once regarded as undesirably strange-looking interpretations of otherwise desirable cars, both Ghia Cadillacs fell into disrepair but were never scrapped, likely because of visionary enthusiasts who understood that they were too special to consign to a wrecking yard regardless of how derelict they may have become. That the cars survive is as much a tribute to their stout underpinnings as it is to their body design. Other European-bodied Cadillacs were built during the first postwar decade in addition to the Ghia coupes. Two were lavishly bodied by the French coachbuilder Jacques Saoutchik, another was bodied by Spohn of Germany to a design by Brooks Stevens, and still another was built by Pinin Farina during the time he was experimenting with round and oval "jet intake" grille designs. That they all survive is a reminder of the time when coachbuilders around the world were still available to construct something special and the chassis worthy of carrying their work were still being built. P – *LK*

design and coachbuilding firms of the day, Ghia was founded by Giacinto Ghia in 1915 in the northern Italian town of Turin. It began by making special lightweight, aluminum bodies for Alfa Romeo, Fiat, and Lancia, but did not receive wide acclaim until a Ghia-bodied Alfa Romeo won the Mille Miglia in 1929. Following the factory's destruction during World War II and the death of its founder, the company was taken over by Felice Mario Boano, a close associate of Giacinto Ghia. Luigi Segre, a former associate of Boano, took control of the company in 1953. The next decade was characterized by commissions from manufacturers in foreign markets, most familiarly the Volkswagen Karmann Ghia, whose name was derived from the firm that designed the body, Ghia in Italy, and the firm that built the bodies, Karmann in Germany. After Segre's death, Ghia was sold to Alejandro de Tomaso, who, in turn, sold his shares to Ford, who later used the famous Ghia name for its top-of-the-line models and various concept cars.

1953 Cadillac Series 62 by Ghia

PLUG-IN PIONEER

1997 GM EV1

Technological advancement is a hallmark of the automotive world, but consumer demand is what ultimately determines which vehicles survive in the marketplace. And while government mandates also play an active role in shaping transportation alternatives, it is frequently a combination of the two influences that guides the development and adoption of new automotive technology. This proved to be especially true for the American electric-vehicle industry during the late 20th century. While interest in electric vehicles (EVs) had fluctuated throughout the century, it usually did so in sync with technological availability and economic necessity. The tipping point came when the Organization of Petroleum Exporting Countries (OPEC) restricted oil sales to the West beginning in 1973. Without warning, the unreliable availability of crude oil forced the embargoed nations to re-examine its collective attitude toward electric vehicles.

Without any existing electric vehicle technology to develop during the 1970s and 1980s, the only way that manufacturers could respond was by changing the specifications of components already familiar to buyers. Cars became smaller, engines became more efficient, components were redesigned to weigh less, and alternative fuels such as diesel and propane were tested. When it became clear that sporadic government-sponsored studies and casual experimentation by private industry would yield no cost-effective, readily adoptable solution, state governments, especially that of California, stepped in to compel automakers to take electric power more seriously. Because manufacturers did not want to be shut out of their largest and most influential market, they reconsidered the viability of electric power in a market that had been conditioned to expect the performance of gasoline-powered cars. By September 1990, the California Air Resources Board (CARB) passed a resolution that would both reinforce and accelerate the development of electric vehicles.

This legal declaration by CARB, which was part of the California Low Emission Vehicle and Clean Fuels regulation, was known as the Zero-Emission Vehicle (ZEV) mandate and stipulated that, by 1998, two percent of all vehicles sold in California would have to be Zero Emission Vehicles, a percentage that would increase to five in 2001 and ten by 2003. Though these proportions made it seem like the number of compliant vehicles built

The scientifically aerodynamic shape of the EV1 reduced drag, enhancing driving range at freeway speeds.

would be comparatively small, the technology required to meet the regulation had to be developed almost from scratch because there was only a miniscule number of series-produced electric vehicles on the market at the time, all of which relied on technology more closely associated with golf carts than automobiles. And while electric cars were mildly fascinating to many consumers, most people were not yet ready to trade high fuel prices for range anxiety, and ease of refueling for the need to spend precious time at a charging port.

Like with many other newly mandated government regulations, consumer unwillingness to tolerate the inconveniences that accompanied EV ownership had little effect on the law. But consumers were compelled to overcome their resistance because the problem remained that if major manufacturers were to continue selling vehicles in the profitable California market once the CARB regulation went into effect, they would have to add such vehicles to their general product lineup. Seizing an opportunity to engender good public will by being a responsible corporate entity, General Motors offered a unique solution to this problem with the 1996 release of its first electric vehicle, the GM EV1, which was immediately recognized as the first modern, mass-produced electric vehicle built by a major manufacturer. The two-seater, which was a development of the 1990 GM Impact concept car, was aerodynamic, lightweight, and easy to operate. Its 137-horsepower electric motor allowed it to reach a respectable top speed of 80 miles per hour, making it suitable for the typical pace of traffic on American highways. To achieve such high performance, GM's EV1 relied on 1,175 pounds of lead-acid batteries, arranged in a T-shaped battery pack around which the vehicle was designed.

Setting it apart from earlier electric vehicles, GM's two-seater also had a range acceptable for long-distance commuting and could travel up to 90 miles on a single charge. The EV1, whose electricity port was accessible through a slot at the front of the car, could be charged at dedicated General Motors 220-volt, 6.6-kilowatt "MagneCharge" charging stations in three hours. A portable charging unit, which stored conveniently in the car's trunk, was available for emergencies. This unit, which could be plugged into a 110-volt wall outlet, required 14 hours to fully charge the car. The EV1 boasted numerous innovative features that built upon its electrically powered design. Included among them was a starting procedure that was initiated simply by inputting a five-digit code into a keypad on its console and pressing "run." Instead of a fuel gauge, the EV1 included a range indicator, which displayed the amount of charge available and interpreted it into miles remaining based on previous driving habits.

GM made this experimental car available to the public for lease only, not purchase, beginning in 1996 from select dealers in California, Arizona, and Georgia. Doing so gave GM control over the adoption, operation, and re-distribution of the vehicle and effectively made lessees part of the product-development process. Eager to be a part of such a paradigm-changing program, each lessee agreed to record the performance of the EV1s in a special logbook supplied with the car. During this time, the EV1 received much support from its leaseholders, many of whom formed an EV1 club and sold aftermarket accessories to make their already unique vehicles even more special. But although high-profile lessees, like actor Danny DeVito, helped improve the car's popularity, the EV1 was not exempt from the usual teething problems, and in 2000 GM would recall many of its first generation EV1s after discovering issues with their charging systems.

General Motors produced a total of 1,117 EV1s in two different versions, and after four years of costly production, they discontinued the car, compiled the data, and destroyed all but 40 vehicles. The EV1 in the Petersen Automotive Museum's collection is one of the few survivors and has a unique place in the history of General Motors's electric vehicle program. When GM informed then-current leaseholder Kris Trexler that he could not keep his electric vehicle once the lease ran out, he actively lobbied for GM to donate it to the Museum but not before organizing a "Charge Across America Campaign," for which he took the car on a 3,275 mile journey from Los Angeles to Troy, Michigan. Though he had to carefully plan his numerous "refueling" stops weeks in advance, Trexler was able to demonstrate the potential of electric power by successfully completing the trip, traveling through rural locations which would have once seemed out of the realm of electric vehicles. Trexler's trip was also covered by multiple major news outlets, introducing a wider public to this rediscovered transportation technology and blazing a new trail for every modern EV that followed. — *KF*

No automobile today can compare to a Stutz. Not the original Stutz from the classic era that gave us the White Squadron race cars and thundering DV-32, but the Stutz from the disco era that successful Manhattan businessman James D. O'Donnell built using Pontiac mechanical components, hand-crafted Italian coachwork designed by Virgil Exner, and plenty of his own money. Nothing about O'Donnell's Stutz project was certain, and the car that later proved to be the envy of movie stars, sports heroes, and business tycoons could just as easily have borne the name of any one of a number of other famous marques that had shined brightly for a brief but spectacular moment in automotive history before vanishing from sight.

Drawing inspiration from the past was nothing new. Industrial designer Brooks Stevens had created the Mercedes-Benz SSK-inspired Excalibur SS in 1965, and Glenn Pray began building scaled-down replicas of the Art Deco 1936 Cord Sportsman beginning one year later. The popularity of these contemporary classics demonstrated that the buying public still held enormous esteem for many of the once-great names that, in the mid-1960s, were still fresh in the minds of consumers. But it was not just the vehicles that *looked* old that captured enthusiasts' attention. It was also the experimental vehicles, with styling that combined the upright grilles, sweeping fender lines, and outside exhaust pipes of the grand classics with the sleek styling, tight handling, and modern comfort of their contemporaries. They were called "revival cars" during the 1960s, and former Chrysler styling boss Virgil M. Exner, Sr. had a passion for them. Stutz Company founder James O'Donnell shared his enthusiasm.

Exner was well known in the car design world. Among his creations were Chrysler Corporation "dream cars" like the 1953 Chrysler D'Elegance, 1955 Ghia Streamline "Gilda," 1960 Plymouth XNR, and 1961 Plymouth Asymmetrica. In 1965 he designed the last body ever to be mounted on a brand new Bugatti chassis, the Type 101C. That same year, he designed the copper-trimmed 1965 Mercer Cobra for the American Copper Development Association and in 1966 the huge four-door Duesenberg Model D that was intended to revive the famous name with financial underwriting from Texas real estate mogul Fred J. McManis, Jr. While O'Donnell was most interested in the Duesenberg project, his examination of the financial records of the Italian company revealed serious irregularities, and Stutz became his next choice.

In August of 1968, O'Donnell incorporated Stutz Motor Car of America and negotiated with Pontiac Motor Division President John Z. DeLorean to supply him with Pontiac Grand Prix chassis and running gear. One year later, a fully functional prototype had been crafted by Carrozzeria Padane in Modena, Italy. Painted black with a red-leather interior, the car debuted in 1970 at the Waldorf Astoria Hotel in New York and attracted a great deal of attention, not just from the press but also from the wealthy individuals who wanted to proclaim their affluence in the most high profile way possible. Likely the most flamboyant among them, Elvis Presley persuaded O'Donnell to sell him that first Stutz, and it reportedly became the only car that "the King" regularly drove himself. The price was a stratospheric $26,500.

1976 Stutz d'Italia

STARSTRUCK

Few cars exemplify the Las Vegas lifestyle like the hand-built Stutz d'Italia convertible.

Another 26 first-series Stutz coupes followed, all recognizable by their split windshield that, while seemingly archaic, bestowed upon them a rakish elegance that was truly unique in its day.

By then dubbed the Blackhawk, Stutz automobiles from 1972 to the end of production in 1987 were built by Carrozzeria Saturn in Cavallermaggiore, Italy, all with slightly less distinctive, but more practical, curved one-piece windshields. Intended to hold up under the most punishing circumstances, the bodies were hammered out of steel that was two and a half times as thick as that of typical American cars of the era. They were also painted with between 18 and 22 layers of hand-rubbed lacquer for a gleaming finish. And while the 455-cubic-inch engine of the Pontiac was potent for the time, it was barely up to the task of offering the 4,500-pound car performance commensurate with its looks.

Unlike other manufacturers of bespoke vehicles, which tended to keep the identity of their clients confidential, Stutz was not afraid to issue a list of owners during the mid-1970s, and it read like a roster of the rich and famous. Counted among them were Dean Martin, Sammy Davis, Jr., Dick Martin, Lucille Ball, Robert Goulet, Wilson Pickett, Johnny Cash, Liberace, Jerry Lee Lewis, Tom Jones, Elton John, and Paul McCartney. Well-known Las Vegas entertainer Wayne Newton also owned a Stutz. And while he purchased it second hand, the previous owner was famous motorcycle daredevil Evel Knievel. Likely the most special of all, it was the only Stutz convertible ever built. It was called the d'Italia and, at $100,000, was the most expensive car in the world when it was introduced at the Beverly Hills Hotel in May of 1976. It was originally painted a gleaming white and factory fitted with genuine wire wheels.

Having always made closed cars, Stutz realized that a sleek open car would be an excellent addition to their lineup and just the thing to get back into the public eye. And they were right–it was so costly that even the non-automotive press carried the story. But at a time of severe fuel shortages and ever more restrictive governmental regulations, most of the global market did not want to proclaim what convertibles represented; an optimistic, upbeat outlook on life. The 1970s were a time when consumers began to shun convertibles, retreating into windowless panel vans in a symbolic effort to shut out a world that was becoming ever more hostile. But the kind of people who purchased extremely expensive cars were often less affected by typical problems of the day and would have likely embraced a Stutz convertible as much as they would any ultra-expensive car. It was the 1970s equivalent of a Delahaye, Delage, or Talbot-Lago: glitzy beyond measure and the very definition of self-indulgence.

Production was to have been restricted to just 10 per year, but only the one Stutz convertible was ever made. Work had begun on a second one, but was halted when Stutz management elected not to pursue the convertible market because of anticipated safety laws that ultimately never materialized. The "d'Italia" name was also criticized because it implied that, since no other model in the Stutz range had a name that inferred Italian origins, it was the only Stutz actually built in Italy.

The Stutz model range ultimately consisted of the Blackhawk and Bearcat coupes; the Duplex, IV-Porte, and Victoria sedans; the Diplomatica, Ministeriale, and Royale limousines; and converted Chevrolet Suburban SUVs designated the Bear, Gazelle, and Defender. In total, fewer than 600 Stutz automobiles of all types were built. And while demand may have leveled off in America after a few short years, the Stutz found a ready market among world leaders such as the King of Saudi Arabia, Gabon President El Hadj Omar Bongo, and King Hassan of Morocco.

Today a Stutz of any type is a rare sight. And while their flashy "malaise era" styling and gilded interiors are not to everyone's taste, they remain sought-after vehicles among collectors looking for a limited, but practical, production vehicle from a bygone era for which mechanical parts are readily available. They are to their era what Dual-Ghias were to the 1950s and Facel-Vegas were to the 1960s: expensive and luxurious grand touring cars with ample luxury that spoke volumes about their owners. – *LK*

TWO FOR ONE

1953 Dodge Storm Z-250 by Bertone

“FRED ZEDER ... DROVE IT TO NEW YORK CITY AND PARKED IT IN FRONT OF ROCKEFELLER CENTER WHERE IT ATTRACTED SUCH A CROWD THAT THE POLICE HAD TO ASK HIM TO MOVE IT.”

Although they were a rare sight before World War II, imported sports cars have always plied domestic roads and boulevards, but in such miniscule numbers that the only likely place to catch a glimpse of one was in a major American city. The reason was simple: most Americans never considered owning a sports car because Detroit had done such a good job conditioning the buying public that bigger was better and that to truly enjoy an automobile one had to take the drive out of driving. And American roads were anything but fun to drive.

American cars were the vehicular equivalents of the 18th-century landed aristocracy: well-dressed and powerful but also corpulent and lethargic. But the domestic market immediately following World War II was about to be shaken to its core as the quirky foreign cars some returning American servicemen brought back with them from their European tours of duty made it increasingly obvious to the general public what they had been missing out on. And plenty of American entrepreneurs were around to take notice.

As with most newly identified markets, the first manufacturers able to take advantage of the surge in sports car demand were those that were small enough to spool up production quickly. Large and ponderous mega-corporations like GM, Ford, and Chrysler were too busy giving Americans what they knew would sell and were not inclined to divert research and development hours, production capacity, and marketing talent to the manufacture and distribution of anything but proven sellers. But nature abhors a vacuum and so does the automotive market.

Backyard tinkerers were among the first to fill the market for distinctly American sports cars, creatively building from scratch vehicles derived from derelict junk cars and cast-offs. Then came the specialists like Frank Kurtis (from the Los Angeles suburb of Glendale), who realized that a segment of the public would actually spend money on such a vehicle if it was attractive, professionally finished, and came from a trusted manufacturer. When a Kurtis vehicle appeared on the very first issue of *Motor Trend* magazine in 1949, it was a sign that much of mainstream America was awake to sports cars and ready for its domestic automotive industry to come up with something that was practical for American road conditions but edgy enough to proclaim their individuality.

For the “Big Three” automakers, the relative success of minor manufacturers served as a kind of informal verification of demand that gave them the courage to explore the sports car market beginning with experimental vehicles. These flashy cars were

distinguished most overtly from their regular production siblings not by their lighter weight, shorter wheelbases, and tighter suspensions, but by their two-place seating capacity, strategically placed chrome, and lowered rooflines.

The 1951 GM Le Sabre and Buick XP-300 were two well-known examples, but Ford and Chrysler were equally as committed to the strategy and built dream cars of their own that they hoped would whet the public appetite, not for anything sporty, but for the workaday family cars that were already in dealer showrooms. They were marketing a superficial association with greatness, and it was the advertising agency's job to ensure that the message got through.

Advertising experts were some of the most revered marketing professionals of their day. During the 1950s, it was the perfect career choice for those who wanted a respectable job in corporate America while keeping alive and sharp the creativity that defined them as individuals. And an advertising professional with a position of influence in their agency, an engineering degree, and the right Detroit connections could be counted upon to come up with the kind of car that was more than superficial. Fred Zeder, Jr. was such a professional and was more than ready to get into the game.

Following in his father's footsteps, Zeder had earned an engineering degree, but he had yet to apply his newfound knowledge in the automobile industry. Instead, he secured in 1951 the enviable position of vice president of the New York-based McCann-Erickson advertising agency. It was a position that enabled him to indulge his passion for auto racing. And while he was a competent driver, he could easily see that Briggs Cunningham's Chrysler-powered Allard had the combination of performance, reliability, and road manners that outclassed his vehicles. He believed that there was a need for a dual-purpose vehicle with American power, European handling, and elegant poise.

Zeder had the connections to get such a project started because his uncle was Carl Breer, one of the Chrysler "Three Musketeers" from the 1920s who worked as a consultant for the auto-making giant for four years after his retirement in 1949. His idea was to take readily available Chrysler mechanical components, place them in a chassis designed under his own direction, and clothe it in sleek Italian coachwork.

Targeting a 1954 launch, Fred Zeder formed a partnership with fellow racing enthusiast Gene Cassaroll, who owned the vehicle transport company

that shipped most Chrysler Corporation cars around the country and would later become the driving force behind the Dual Ghia. Together they founded the Sports Car Development Corporation and engaged ex-Cunningham chassis engineer John Butterfield to help develop an appropriate platform, which he did primarily in his basement in Detroit. Called the Z-250, likely because of the "Z" in "Zeder" and its 250-horsepower rating, the car employed a modified version of the ultra-efficient Dodge Hemi V-8 engine that could easily propel the car from 0-60 miles per hour in a scant 7.5 seconds, with the quarter-mile taking just 14.7 seconds.

But the Z-250 had one feature that set it aside from every other serious postwar sports car–interchangeable bodies. When raced, the comfortable touring body currently fitted could

Like other American manufacturers, Dodge conceived a two-seat sports car for a market that never materialized.

theoretically be removed by simply unscrewing four bolts and be replaced with an ultra-light fiberglass body. It was to be two cars for the price of one. The aluminum body was crafted in Italy by Bertone. And while it took nine months (instead of the promised three) to complete, at a cost of over $6,500, Bertone's interpretation of the long-hood, short-deck proportions was impeccable. Interestingly, it is not recorded who constructed the fiberglass racing body or even if it was ever built.

After the car was finished, it was taken to Fiat for testing and additional development and then displayed at the Turin Auto Show. It was later placed on the SS *Andrea Doria* to be shipped to New York. Fred Zeder took delivery of the car at the dock, drove it to New York City, and parked it in front of Rockefeller Center where it attracted such a crowd that the police had to ask him to move it. The Z-250 was then taken to Chrysler's design headquarters in Hamtramck, Michigan, in April of 1954 where, instead of sparking an interest in manufacture, it was inexplicably locked in storage until 1956.

By the time Fred Zeder, Jr. reclaimed his car, the motoring landscape was already peppered with American sports cars like Corvettes, Nash-Healeys, Cunninghams, and Kaiser-Darrins. But the car was still his to enjoy, and he drove it for 16 years before loaning it to Northwood University where it remained until 1992. By this point in history, the engine had sustained damage and was replaced with a 1965 Dodge V-8. The new powerplant was just right, and it allowed him to enjoy the vehicle for another handful of years until he donated it to the Petersen Automotive Museum in 2000. — *LK*

1953 Dodge Storm Z-250 by Bertone

LITTLE GIANT KILLER

1964 Brabham BT-8

By 1965 the push among race car constructors to innovate was rapidly consigning front-engine cars to history. In their place, smaller, more nimble racers with more technically sophisticated, mid-mounted engines were taking to the field to demonstrate what could be achieved with precision fabricating, clever engineering, and improved aerodynamics. Jack Brabham was quick to take notice of the new approach to improving performance and ultimately brought his considerable practical experience to bear to build race-winning cars that bore his name and raised the performance standard for every vehicle that followed.

Australian by birth, Brabham was born in 1926 in Hurtsville, New South Wales. He served as an aircraft mechanic in the Royal Australian Air Force during World War II, then established an auto shop of his own in 1946 after being discharged. Not content to merely work on cars, Brabham began a stint in midget-car racing that lasted until 1952. He moved to England in 1955 to drive for Cooper and captured his first F1 victory four years later in Monaco, ultimately securing two world driving championships for Cooper before leaving in 1961 to build automobiles that embodied his ideas about what a racing car should be.

The first cars built by Brabham were one-seat racing cars similar in scale to the Cooper. They made use of V-8 engines from Coventry Climax, a respected manufacturer with a knack for producing motors with a high specific output. Single-seaters continued to be Brabham's specialty until the BT5 sports racing two-seater debuted in 1964. The "BT" designation was derived from the last names of Brabham and Ron Tauranac, the cars' designer, while their numeric suffixes denoted where the cars fell in the sequence of designs. Eighth in a series of Brabham's designs, the BT8s were soon dubbed "giant killers" because of their ability to outrace much larger vehicles. But success did not come immediately.

Though the first Brabham was small in size, its aggressive stance gave it a presence matched by few other competition cars.

The Brabham BT8 was based on the two-seat BT5 that, in turn, was based on the firm's successful Formula Junior one-seater. Embodying technologies perfected in competition against the successful Lotus 23, it employed a beautifully finished multi-tube, space-frame chassis with a 14.5-gallon fuel tank installed on each side for even weight distribution and more predictable handling. And there were several engine choices available to the buyer including 2.0-, 2.5-, and 2.7-liter twin-cam versions from Coventry Climax, the last of which generated an exceptional 250 horsepower. A 240-horsepower BRM (British Racing Motors) V-8 could also be specified.

The Petersen Automotive Museum's BT8 was Jack Brabham's personal race car and made use of the largest available Coventry Climax engine, the 2.7-liter, 250-horsepower twin-cam. At 10.5 inches, its disc brakes had substantially more surface area than the standard 10-inch versions on customer cars. It debuted at Brands Hatch in England on August 3, 1964, and finished second, despite starting at the back of the grid. By October Brabham had come to California, racing the BT8 at both Riverside and Laguna

Seca. He sold the car later in the year, and over the years subsequent owners fitted it with a succession of engines to keep it competitive. The BT8 was ultimately acquired by Phillippe de Lespinay who commissioned a full restoration. It was later acquired by dedicated Petersen Automotive Museum supporter Peter Shea, who donated it to the museum in 2018. Having been Brabham's personal car, it is one of the most significant of his BT5, BT8, and BT17 series of sports cars.

Close study of the BT8 reveals why it was so successful. One-piece front and rear panels could be fully opened to provide maximum access to any component that might need urgent attention during a race. They also allowed for a virtually unobstructed view of the tubular chassis, regarded by many as a work of machine art. The low nose of the Brabham BT8 betrays the increasing role that efficient aerodynamics had begun to play in the design of race cars, while openings adjacent to the taillights permitted hot air generated by hard braking to be quickly channeled away from the rear disc brakes. Even the businesslike cockpit of the BT8 was designed to comfortably accommodate only the driver, although a passenger seat was required by rules of the day that specified that any "sports" racing car must be capable of seating two.

During a 15-year career as a driver, Brabham competed in 126 Grands Prix and earned 14 victories. He garnered three Formula One World Drivers' Championships (1959, 1960, and 1966) and two Constructors' Championships (1966 and 1967). His final triumph came in South Africa in 1970, the year he retired after finishing sixth in the Driver's Championship and fourth in the Constructors' Championship. And while the BT8 was not developed to the degree that the Brabham Formula One cars had been, its very existence attested to Brabham's determination to build little sculptures on wheels that were as captivating to behold from the trackside as they were to experience from the cockpit. His combined achievements did not go unnoticed by his admirers; he was knighted in 1979 and inducted into the International Motorsports Hall of Fame in 1990. When Sir Jack Brabham passed away in 2014, he was remembered by Dan Gurney as "an outstanding engineer, a tiger of a driver…and a true Aussie pioneer!" A most fitting tribute from one legend to another. — *LK*

WEAPONRY ON WHEELS

1989 Batmobile

Cars appearing in fantasy and science fiction films are often rooted in literary traditions, but not the Batmobile. Having originated instead in a graphic tradition, it is regarded as the ultimate example of an automobile playing a crucial role across a multimedia universe. And after 80 years of fighting crime in an increasingly dark and dystopian Gotham City, Batman and his iconic cars can now be found in comic books, movies, television, video games, toys, trading cards, and more.

The comic-book hero Batman made his first appearance in the pages of *Detective Comics* #27 in 1939 and within a year received a dedicated comic series. The hero's iconic vehicle leapt onto the comic book scene soon afterwards, introduced as having "the quiet purr of a supercharged motor" in the 1941 *Detective Comics* #48. The Batmobile, however, was not just another means by which the caped crusader traveled the streets of Gotham City. It was instead an important representation of the wealthy and benevolent Bruce Wayne character's heroic alter ego.

Unlike alien or mutant heroes like Superman or Spider-Man, Batman was not born with, and did not acquire, extraordinary powers. Instead, Wayne developed and built technological devices that gave his crime-fighting persona a superhuman advantage over his foes. The Batmobile, in all of its variations, was an extension of this technological arsenal and operated as a multifunctional tool that the hero uses to subdue villains. As described in *Detective Comics* #37, it "prowls through the night preying upon the criminal parasite."

In its early graphic iterations, the Batmobile appeared in a variety of different styles, not all of which resemble the dark-colored, bat-themed vehicle popular in film today. One of the first vehicles driven by the hero appeared in *Detective Comics* #3, where Batman was shown driving an unspectacular red car which resembled the sports cars of its day. Only a few editions later, in *Batman* #5 from 1941, the hero was given a dark blue, or black, roadster. This was significant in that it was the first of Batman's vehicles to have distinctive bat-themed styling.

In contrast to Batman's red sports car, the dark-colored roadster incorporated both a bat-shaped battering ram over its grille and a wing-like fin that echoed the silhouette of Batman's cape. This car was

“DESIGNED TO APPEAR HEAVILY ARMORED ... WITH STYLING INFLUENCES FROM 1950S CORVETTE STINGRAYS AND THE AERODYNAMIC BONNEVILLE STREAMLINERS OF THE SAME ERA.”

still known as "Batman's car." It was not until *Detective Comics* #48, released in 1941, that it was designated the "Batmobile" in reference to another red, high-performance vehicle adorned only with a small bat-shaped hood ornament.

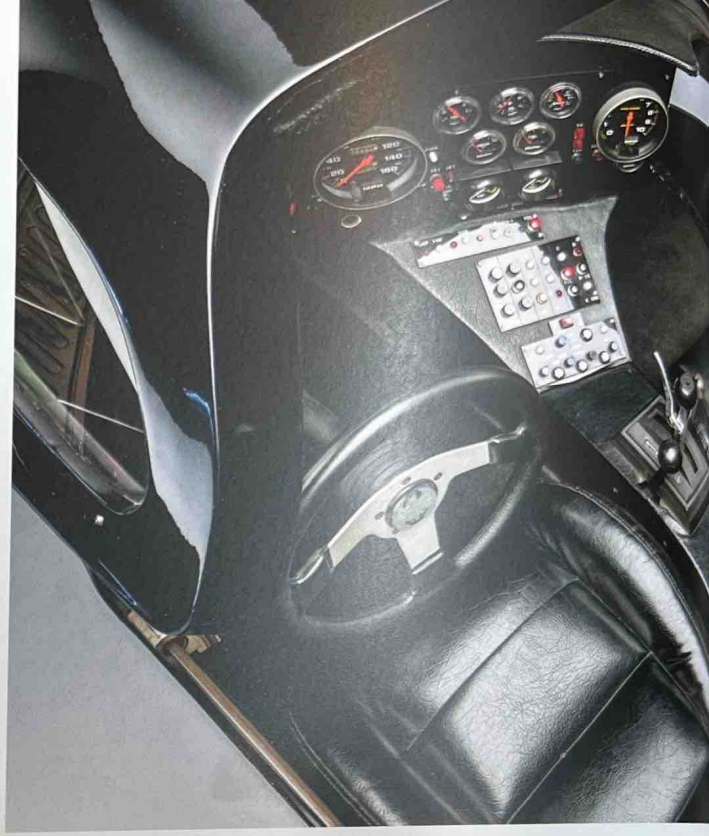
The Batmobile made its transition from comic book pages to three-dimensional model in the early 1960s when All Star Dairies commissioned the production of a full-size Batmobile to promote their Batman-themed dairy products. The first official, and most recognizable, road-going version of the Batmobile, however, appeared in the 1960s *Batman* television show and 1966 movie. The Batmobile's transformation from an imaginary car into the physical realm was the beginning of its divergence in design from a fantasy rendering to a functional reality.

The color palette used for the comedic 1960s television series was drawn from the visual effect achieved by the four-color process used to print comic books. In turn, it spawned an interpretation that led to much darker depictions of Gotham and the "Dark Knight," especially in film beginning with Tim Burton's *Batman* in 1989 and extending even to his car. To assist him in the fight against villains, Batman uses the redesigned Batmobile, which came fully equipped with machine guns, smoke emitters, and a "Batmissile" mode, creating a formidable defense against any physical threat.

Designed jointly by Anton Furst and Tim Burton, the 1989 Batmobile evokes the dark tone of the original Batman comic book series. Its design and coloration paralleled the noir visual style of the 1989 *Batman* film, which as concept artist David Russel noted, Burton requested to be so dark that he turned to sketching the concept drawings on black paper with white pencil. Much like the blue-black roadster that appeared in *Batman* #5 in 1941, the 1989 Batmobile incorporates elements of Batman's costume into its design.

The two sculpted rear wings of the car mirror the silhouette of Batman's cape. Further identifying it with Bruce Wayne's crime-fighting persona, the car's finish mirrors the dark color of Batman's costume and incorporates the hero's symbol of a stylized bat into its design. Its styling, however, also borrows from the appearance of jet aircraft and muscle cars. It was designed to appear heavily armored, but also fast and functional, combining parts from a fighter jet with styling influences from 1950s Corvette Stingrays and the aerodynamic Bonneville streamliners of the same era.

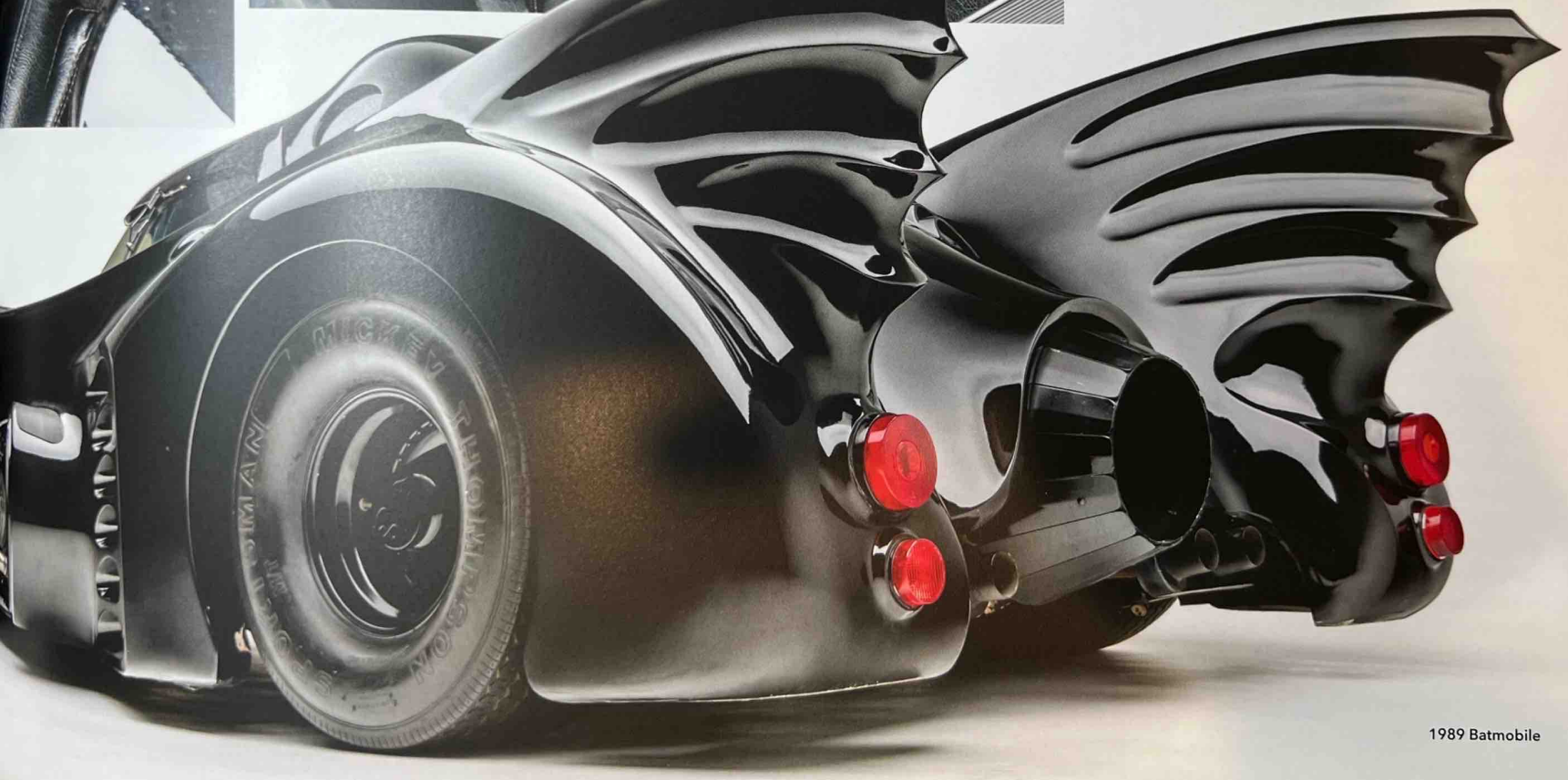
For the 1989 and 1992 *Batman* films, two Batmobiles–a featured car and a stand-in–were constructed. Almost 20 feet in length, the Batmobile driven by Michael Keaton in the Burton Batman films was based upon a 1967 Chevy Impala found in a London junkyard. It was powered by a 327-cubic-inch V-8 Chevrolet engine mounted low in the frame in order to allow for a lower hood line to enhance the car's sleek profile. Rolls-Royce jet engine components were used to form the air-gulping intake at the front, and turbine blades in the nosepiece were scavenged from a British Harrier fighter jet. The enclosed canopy



Tim Burton's vision for a more sinister Batmobile featured prominent wing-like fins and fighter-jet components.

of the Batmobile allowed filmmakers to use special effects, such as explosions, without putting Batman–or any number of stunt drivers–in harm's way.

The 1989 Batmobile in the Petersen Automotive Museum's collection is one of three studio-authorized Batmobiles constructed for publicity and promotional use after the film's release. Though it did not appear on screen, the use of this Batmobile as a promotional device emphasizes how important the Batmobile has become to the Batman franchise and highlights the ability of fantastical film vehicles to define the personas of the characters who drive them as much as their costumes and makeup do. The model serves as an additional example of how one's car is yet another layer of clothing, which in the case of Batman is a suit of ultra-sophisticated armor. P – *KF*



1989 Batmobile

SOVIET STYLE

1962 GAZ Chaika Model 13B Convertible

Though resembling American cars of the 1950s, the Chaika was built with no involvement from any US manufacturer.

Throughout history, most world leaders have had access to material possessions that would be too rare, expensive, or difficult to obtain for anyone less well connected. This was especially important when it came to the automobiles in which rulers were expected to make a good impression on behalf of their countries. And while most European leaders have adopted a nationalistic approach to selecting the cars they use for official purposes, rulers of nations without a native automotive industry turned to prominent luxury car manufacturers from other countries for their vehicles. Tsar Nicholas during the 1910s had a fleet of powerful, opulent, and expensive Delaunay-Bellevilles imported from France. Later, Vladimir Lenin acquired a Rolls-Royce. But soon after World War II, the Soviet leadership would no longer have to reach beyond its borders for the kind of car with which to make an unmistakably powerful impression.

Its name meaning "gull," the Chaika was built in the former Soviet Union by GAZ, a firm originally established to manufacture Ford vehicles beginning in 1932. Though Chaikas bear a strong resemblance to the 1955 and 1956 Packard and were powered by large, American-style V-8 engines, they were produced with no involvement from any American firm. But it was evident that the styling of the American luxury brand substantially influenced the formative years of Chaika development, and when the first prototypes of the new class of Soviet "luxury" vehicle debuted in 1957, there was no mistaking the source of its inspiration. Officially designated the GAZ-13, the cars were evaluated on the challenging roads of Ukraine and Russia, including in the Caucasus Mountains, accumulating a total of more than 21,000 test miles–a small number by American standards, but satisfactory for a vehicle built by an aspiring luxury car manufacturer. The first production GAZ-13 rolled off the assembly line at the Gorky plant on January 19, 1959.

The new car was given the brand name Chaika to symbolically distinguish it from the more proletarian Volga that was built in the same plant. It was said that just as gulls always fly over rivers, so would the GAZ-13 always be above the Volga in terms of prestige and luxury. It was powered by a 5.5-liter, overhead valve V-8 engine and came equipped from the factory with power brakes, power steering, power windows, and a push-button automatic transmission. Its three rows of seats could accommodate at least seven people, and its efficient heating system was well suited to keep passengers comfortable in the bitterly cold Russian winters. Acceleration from zero to 100 kilometers per hour took 20 seconds, and top speed was 99.5 miles per hour; unimpressive figures by Western

standards, but more than acceptable for a car that was a ponderous 18.5 feet in length and weighed almost three tons. Painted two-tone black and white, the earliest production car shown publicly was displayed at virtually every important international automobile exhibition, including those at Brno, Budapest, Geneva, New York, Leipzig, and Mexico.

In a day when Soviet cars ranged in price from 16,000 to 40,000 rubles, the cost of a Chaika was estimated to have been at least 100,000 rubles (the equivalent of $210,000 today). But the theoretical price was moot since no ordinary Russian citizen could purchase a Chaika because they were never for sale on the open market. A Chaika was almost always given as an honorary gift from the head of the Soviet Union to members of the Communist Party elite, mid-level officials, select politicians, ambassadors abroad, and foreign ministers. Many famous artists, writers, athletes, and other celebrities also rated a Chaika, as did many foreign diplomats in Moscow despite their well-known preference for American and European cars. Nikita Khrushchev even presented Chaikas to Fidel Castro and the first woman in space, Valentina Tereshkova, an appropriately symbolic gesture because her radio call sign was Chaika. Everyone else had to admire this car from a distance if they were lucky enough to see one on the road, or else settle for a magazine photo.

Three variations of the GAZ-13 sedan were also produced: the GAZ-13A (a limousine with an internal partition), the GAZ-13C (an ambulance), and the GAZ-13B (a four-door convertible). One hearse was constructed, but the model never achieved mass production. Interestingly, Mosfilm, the most important Russian movie studio of its day, specially ordered several Chaika camera cars with distinctive roof and bumper modifications to accommodate camera mounts. Upgrades for 1962 included new wheel covers for improved appearance, upgraded carburetor for improved performance, and higher quality upholstery for greater comfort. Mechanical issues would have been virtually nonexistent because all Chaikas reportedly received new engines after their odometer reading reached a certain threshold. Those that were deemed worthy of disposal were painted white and transferred to "marriage centers" to serve as transportation for newlyweds.

During the final years of production, output of the Chaika GAZ-13 slowed as some production capacity was turned over to the new Chaika GAZ-14 in 1977, with both models built concurrently through 1981. Total output of the GAZ-13 during its two-decade production cycle totaled 3,179 four-door sedans and limousines, 20 station wagons (including ambulances), and an estimated eight convertibles. The vehicles were seen regularly on the streets of Moscow and other Soviet Bloc population centers and were likely regarded with a combination of awe and apprehension from passersby because they would almost certainly have been occupied by high ranking government officials who wielded enormous power. Almost always painted black for government duty, their sinister appearance had the desirable intimidating effect on the Soviet population wherever they went, serving as tacit reminders of who was in charge and what dire fate would befall anyone who bucked the system.

GAZ-13 Chaikas plied Eastern European roads for decades before a movement to rid them from the streets was spearheaded by Mikhail Gorbachev, whose 1988 "fighting privileges" campaign was intended to close the arbitrary prestige gap between the Soviet people and their leaders by denying the Communist Party hierarchy the luxury items that had once been perks of their jobs. The symbolism of the top Soviet leaders ordering mid-range officials to relinquish their Chaikas in favor of the less prestigious Volga could not have been more evident. Like a seagull being barred from flying over a mighty river, the Chaika was barred from casting its shadow over the Volga automobile. And to emphasize his determination to obviate this means to exacerbate such class distinctions in the future, Gorbachev ordered that all technical documentation and production equipment be destroyed so that such a symbol of failed government policies could never be built again. The purge was so thorough that when interest in resuming manufacture of the Chaika arose in 1990 it was almost immediately quashed.

The imposing GAZ 13-B convertible sedan in the collection of the Petersen Automotive Museum was the official parade car of Nikita Khrushchev during the final years of his regime. Premier of the USSR from 1958 through 1964, Khrushchev had two of these cars built to order, one of which he gave to the Russian cosmonaut Yuri Gagarin, the first human to travel in space. Upon Gagarin's death in 1968, both cars were given to Hungarian President Janos Kadar and remained in Hungary until the collapse of communism in 1989, after which they were exported to the United States. But they are not the only ones to survive. That hundreds of other Chaikas are still roadworthy is a testament to the respect accorded them, and the spare parts industry that has built up around them signals that the new Russia has become fertile ground for the nurturing of that most capitalist of traits, entrepreneurship. — *LK*

1962 GAZ Chaika Model 13B Convertible

DARING DARRIN

1954 Kaiser-Darrin 161

In 1952 car stylist Howard Darrin unveiled a prototype of a unique vehicle to auto-manufacturing upstart Henry J. Kaiser. Built using his own funds, the swoopy prototype featured a low profile, doors that slid forward into the front fenders, and fiberglass construction. Darrin, who had supervised design of the Kaiser-Frazer cars that went into production immediately following World War II, believed that the firm needed a halo car to attract a new generation of Americans seeking a vehicle that combined sports car flair with American comfort. And while Henry Kaiser was reportedly not pleased with either the car or Darrin's boldness in building it, he is said to have relented when his wife, Alyce, stepped in to defend the daring design. Mrs. Kaiser's strong support of the car, combined with Darrin's salesmanship, convinced Kaiser to transform the avant-garde prototype into a production car. In September 1952, Kaiser Motors unveiled to the public the only sports car model that it would ever produce–a sleek two-seater called the Kaiser-Darrin 161.

Until August 1945, the Kaiser name was more synonymous with civil projects and military shipbuilding than it was with automobile manufacturing. But like several other aspiring manufacturers would ultimately do, Kaiser-Frazer developed a plan that it believed would enable it to capitalize on the kind of brisk demand for automobiles that had created the strongest sellers' market the world had ever seen. At first this effort was successful, and Kaiser cars were anticipated with such enthusiasm that eager potential buyers shattered a display window attempting to enter the ballroom of the Waldorf-Astoria Hotel to get their first glimpse of the cars during the 1946 debut. But less than a decade later, Kaiser Motors was losing money at an alarming rate, thanks in part to its emphasis on safety and fine craftsmanship over price, which many customers thought was too high in comparison to similarly valued vehicles. By the early 1950s, and with their financial distress well known, Kaiser Motors conceded that a new, exciting model was exactly what was needed to reinvigorate the product line and increase sales.

The curvaceous body of the Kaiser-Darrin makes a strong statement, even without the chrome trim common to most other cars of the era.

Unlike Henry J. Kaiser, who had no meaningful prior experience in the automotive industry, Darrin had an established reputation as an outstanding designer with a flamboyant style and a knack for forming profitable relationships with affluent clients from around the world. He forged a solid reputation as a custom coachbuilder in the 1920s with his work at Hibbard and Darrin, the coachbuilding firm he established in Paris, France, with Tom Hibbard. By the mid-1930s, Darrin had moved on to another partnership to form Fernandez and Darrin before establishing a shop in the United States. Now called Darrin of Paris, his firm gained renown in Hollywood by building exclusive cars for popular actors and actresses including Errol Flynn, Greta Garbo, and Clark Gable. Darren also lent his styling expertise to major manufacturers like Packard and General

Motors. His transition to designing flashy sports cars was the next in a natural progression of upward steps for the urbane, sophisticated artisan.

In transforming Darrin's design study into a production car, the engineers at Kaiser Motors made few changes to its styling. The most significant among them were the replacement of the prototype's split windshield with a single, curved pane and the use of separate opening panels for the top and trunk instead of a large, one-piece panel that covered both. In all other respects, the production version of the Kaiser-Darrin was virtually identical to the prototype and embodied many of the signature design elements that Darrin had employed earlier on his custom-built cars. One of the most recognizable of these features was the "Darrin Dip," which was characterized by a silhouette that sloped downward to meet the rear fenders at the edges of the doors and then rose back up again to form the trunk line. This feature gave his cars a rakish, sporty look that connoted speed and power. And radical for its time, the two-seater retained the door design of the prototype, which slid into the front fenders on rails instead of swinging outwards, allowing for easier entrances and exits in tight parking spaces.

Avant-garde not only in its styling, but also in its construction, the Kaiser-Darrin body was made of fiberglass, a material that Darrin had first employed in the construction of a mid-sized convertible about ten years earlier. The Kaiser-Darrin was also fitted with bucket seats, full instrumentation, and a three-position convertible top that was concealed by a fiberglass panel when lowered. Built with utility in mind, the top could be configured in one of three ways: fully open, fully closed, or with only the canvas over the driver and passenger removed to allow occupants exposure to the sun without having to endure rear drafts when the car was driven at freeway speeds.

Sleek though it was, the Kaiser-Darrin was based on the platform of one of the most plebeian cars in the Kaiser lineup, the compact Henry J. with which it shared a 90-horsepower, 161-cubic-inch, six-cylinder F-head Willys engine. But the new car was simply too expensive in comparison to its main competitor, the Corvette. Ultimately, only 435 Kaiser-Darrins were built in 1954, the only model year of production. After a fleeting attempt to produce a 1955 model, Kaiser was dissolved in America and re-established in Argentina as Kaiser Carabela in 1958. A small number of unsold Kaiser-Darrins were later acquired by Howard Darrin, who swapped the workaday inline-six for a variety of other more potent engines, including a Cadillac V-8, transforming them into genuine performance cars. And the Darrin Dip was so influential in the customizing world that Petersen Publishing's book *Creative Customizing* formally recognized it as the inspiration behind the popular "swallowtail" profile, a custom car element so ubiquitous that it merited a listing beside "chopping" and "channeling" in the publication's customizing dictionary.

Many large and well-known car companies in the postwar period would mount their own offensives against the Corvette. And while the Kaiser-Darrin could not capture a market that ultimately never materialized, neither did other American sports cars of the 1950s such as the Nash-Healey, Cunningham, and Edwards. It was a once-in-an-era vehicle that could only have been built during a time when one or two people could determine the fate of a company without marketing analyses, customer clinics, and focus groups. P – *KF*

TRI-NATIONAL TREASURE

1953 Nash-Healey Roadster

In 1950 the Nash-Kelvinator Corporation ran a newspaper advertisement announcing a new two-seat roadster with a low profile, hood scoop, and sleek European-style profile. Speaking directly to the American public, the ad excitedly proclaimed that "never have you seen a sports car like this!" And they were right. The car was the new Nash-Healey, and it was indeed different from virtually every other American car on the market. Lightweight and powerful, it would look as appropriate on a tree-lined American boulevard as it would on a high-speed Italian Autostrada. And while its debut was timed to capture a portion of the sports car market that American manufacturers were sure would materialize, the seeds of its creation had been planted well before World War II.

Prior to the war, the United States produced virtually no true sports cars. Compared with countries like France, Germany, Italy, and England, America was a young nation whose transportation infrastructure was created almost entirely during the age of automobiles. With the exception of a few mountain passes and backwoods trails, American roads were well suited for straight-line acceleration and simply did not offer the kind of motoring experiences that would be best enjoyed in the small, agile vehicles that were so valued in Europe. As a result, people did not equate domestic roads with exuberant motoring, and driving for the sheer sport of it was not a popular pursuit. Concerns about the safety of sporting vehicles and the risks inherent in driving them only intensified market resistance to sports cars.

Following World War II, American ideas about sports cars began to change. Returning soldiers brought back with them many of the quick and nimble vehicles they saw in Europe. This exposure gave the States an opportunity

to become familiar with sports cars. Before long, many Americans came to realize that driving could indeed be an enjoyable pastime if it was done in the right car. As the US economy expanded to nearly twice the size it was before the war, Americans had more money to spend on non-essentials, and Detroit took notice. In order to remain competitive with the European manufacturers they saw eyeing their home market, domestic car companies believed that they had to develop new types of cars quickly.

As luck would have it, George Mason, the president of Nash-Kelvinator, and British car builder Donald Healey found themselves crossing the Atlantic aboard the same ship, the *Queen Elizabeth*, in June 1950. Nash was a successful producer of cars in America, recovering quickly after the war to become one of the top three domestic automakers in the months following the armistice. But while Nash had plenty of experience building sedate, value-oriented passenger sedans, coupes, and convertibles, it had never before built a true sports car.

By contrast, Donald Healey had experience as an engineer and automobile racer. In 1933 he began to work for the British company Triumph, where he designed and engineered cars for better performance. Shortly after World War II, he formed his own venture, the Donald Healey Motor Company. The company's Healey Westland Roadster was the first new sports car to appear in Britain after the war. And while Healey had proven experience building sports cars, he had not yet found a place for his cars in the American market.

Realizing that a collaboration would serve the best interests of their respective companies, Mason and Healey agreed to a partnership. The project would provide Healey with solid financial backing along with inroads into the profitable American market. And it would give Nash formal access to Healey's sports car design expertise, allowing the company to save on research and development costs. A European-style sports car would also add distinction to the Nash lineup, helping the company sell its more conventional models. After subsequent meetings, Mason and Healey agreed to develop and build a new sports car, the Nash-Healey.

Built using a British Healey chassis, an American Nash engine, and an Italian Pinin Farina body, Nash-Healeys constructed between 1951 and 1954 were the result of a three-nation collaboration.

A production and assembly system was established that began in England with Healey modifying his race-proven Silverstone chassis to accept Nash components. Nash parts were then adapted by Healey and fitted to the car. Lastly, a body designed by Healey and hand-crafted by Panelcraft was mounted onto the chassis. Incorporating a Nash grille for a corporate "family resemblance," the finished car was to be sold and serviced in America at Nash dealerships. The Nash-Healey was introduced in September 1950 at the Paris Salon de l'Automobile and made its American debut four months later. Touted as the ideal combination of a race-proven European chassis and a powerful American engine, the new sports car listed for $4,063, over $500 more than a Cadillac convertible of the day.

Despite plentiful publicity, sales were disappointing. This was blamed in part on the lackluster body design, and Nash came back in 1952 with an entirely restyled vehicle. This time, however, they had commissioned celebrated Italian coachbuilder Pinin Farina to design the body, a logical choice considering that Pinin Farina had already designed the company's workaday Statesman and Ambassador models.

Pinin Farina's work was transformative, giving the Nash-Healey a racier body, a more modern curved windshield, and a new grille into which the headlights were integrated. Important to Nash, the Pinin Farina styling combined recognizable design elements of full-size Nash vehicles with the sleek, taut silhouette popularized by the Italian school. Company engineers also gave the 1952 Nash-Healey a new 4.1-liter, 140-horsepower engine that enabled it to reach a top speed of 105 miles per hour.

With the change in coachbuilder from Panelcraft to Pinin Farina, assembly of the Nash-Healey shifted from Britain to Turin, Italy. And the three-country collaboration meant expensive logistical challenges. Healey, however, seemed to make the venture work for a time by lending his experience on European racetracks to make the Nash-Healey competitive in the Mille Miglia and Le Mans races from 1950 through 1953. But racing successes were not important to the wealthy customers who purchased them almost exclusively for pleasure driving. And Nash never expected the car to be popular. It was instead intended to bolster the company's prestige, enticing customers into dealerships where they could be sold on one of the firm's more basic models. Ultimately, only approximately 506 Nash-Healeys were built during a production run that lasted from late 1950 through 1954.

But production of the Nash-Healey would have larger implications than it might originally have seemed. The venture made the American public familiar with the names of Pinin Farina and Healey. And working with Nash gave Donald Healey knowledge of the American market and provided his company with the money it needed to start other projects. Yet perhaps the Nash-Healey's most important contribution to automotive history was how it paved the way for other American sports cars like the Chevrolet Corvette and the Ford Thunderbird. And for that, Ford and General Motors owe Nash a debt of gratitude. — *KF*

RED-FLAG RARITY

1979 Hongqi Model CA770 Limousine

In the 1968 edition of G.N. Georgano's indispensable *Complete Encyclopedia of Motorcars*, a mere eight of the 4,000 brands listed were built by Chinese automobile manufacturers. Manufactured in facilities with decidedly unglamorous names like Car Factory No. 1 (in Peking) and Automobile Plant No. 1 (in Chang Chung), automobiles indigenous to China have been in various forms of production only from about 1953, the year that the People's Car debuted. Seven years later in 1959, the Chingkangshan, Dong Feng, Heping (Peace), Fenghuang (Phoenix), and Progress arrived. It was also not until 1959 that China would build a head-of-state car that could compete with the presence, if not the panache, of the best that the West had to offer. It was designated the Hongqi, which is Chinese for "red flag," an important cultural symbol of Communist China, and it remained in production virtually unchanged through 1981.

Although it is claimed that the wheel was invented in China some four millennia earlier, the first modern Chinese automobile did not see the light of day until about 1953. Like the Soviet Union and other Eastern Bloc countries, China saw little need to provide its people with a convenient means to travel when they were supposed to be spending their time hard at work on a farm collective or at a factory, taking care of the needs of the people and the high ranking party officials. Permitting the Chinese people to freely explore other areas of the country–and possibly the world–could only have made them aware of how little they had compared to the citizens of other countries and pose the unacceptable risk of a revolution and subsequent overthrow of the government. This intentionally kept the automobile market limited, and since the Chinese people were not allowed access to Western press, they considered every automobile–regardless of how outmoded it was by Western standards–to be a wonder of mechanical innovation and an object of national pride. The people did not know how far they had been left behind.

The Hongqi was far from a sure thing when it was introduced alongside a small number of other prototypes that competed for Communist Party favor during the 1958-1961 Great Leap Forward era. Produced in only miniscule numbers, one competing model was a four-door parade car with two bench seats and a folding top. And even though it was a true convertible by every definition, it was at first designated the Inspection Model because it was intended for state leaders to use while reviewing troops during parades and celebrations. Built during a crash program to make it ready in time for Chairman Mao to be whisked down a wide street in full view of his people during events, it resembled a 1958 Ford from the front, a 1956 Ford from the back, and a 1957 Buick in profile. An equally small number of four-door sedans were also manufactured, and the new make was eventually designated Beijing. Another brand that offered the Hongqi only a minimum of closed-market competition was the Heping. Its name meaning "peace," just two were believed to have been built. And, like the Beijing, they borrowed a number of design elements from American cars, including mid-1950s Packards and Chevrolets.

An unlikely second wave of automobile creativity was seen during the era of the 1966-1976 Cultural Revolution. And while most of the new vehicles announced to the press were buses and trucks, a small number of private cars were built by small regional manufacturers who took advantage

The large and luxurious Hongqi limousine was in striking contrast to the means of travel offered to the average Chinese citizens of the era.

of new government policies that encouraged industrialization. Unexciting in the extreme, Chinese automobile design was influenced by the idea that vehicles should be strictly utilitarian and intentionally unattractive. Boxy shapes devoid of embellishment were considered appropriate, although many resembled Japanese and American vehicles from a decade earlier. Most such vehicles were one-of-a-kind prototypes that are only now coming to light thanks to greater access to mid-century Chinese press archives.

The Hongqi Model CA770 was produced between 1966 and 1981 and was distinguished from other Chinese cars by its large size and luxurious features. An estimated 202 were ultimately built, and all but a few were used to transport the Communist Party elite and visiting dignitaries, including United States President Richard Nixon during his 1972 visit.

Powered by an American-style overhead valve V-8, an estimated 210 horsepower was available to move the vehicles' tremendous three-ton bulk. No road tests of the day are believed to have been carried out, but acceleration could not have been anything but sluggish, and throwing such a vehicle into a turn would have been frightening.

But performance was secondary to the Hongqi's symbolic meaning to the Chinese people, and the most important national iconography was present from the beginning. To give it the essential nationalistic links, the grille of the earliest prototype (reportedly derived from an available 1955 Imperial to save development time) was patterned after the traditional design of a Chinese fan, and the taillights were intended to look like traditional Chinese lanterns. It was heralded as a milestone in the development of the Communist state. Subsequent models were decorated with emblems in the form of three interlocking red flags on the front fenders and a translucent red flag that appeared to be waving behind a forward-leaning pole on the leading edge of the hood. And while the grille was less overtly fan-shaped and considerably wider, the Chinese "Hongqi" lettering on the trunk was said to be in Mao Tse-Tung's own handwriting.

It is not known how many Hongqi limousines survive in their native land, but a small number have been exported either for diplomatic purposes, cultural exchange, or private use by well-connected entrepreneurs. A 1978 model was featured on "Jay Leno's Garage," but it was not the first to reach Southern California. The Petersen Automotive Museum acquired its 1979 Hongqi in 2003 after it had been donated to a charitable organization by the former director of a Chinese trade mission to Oakland, California. It was once reportedly used by the Panchen Lama during his detention in Beijing.

The Hongqi brand was revived in 1995 and survives today. And despite the hundreds of newly introduced models vying for public attention, it continues to represent the quintessence of premium luxury motor cars in China and remains a source of national pride for autoworkers, an honor it has held for over five decades. — *LK*

FORD FOR THOUGHT

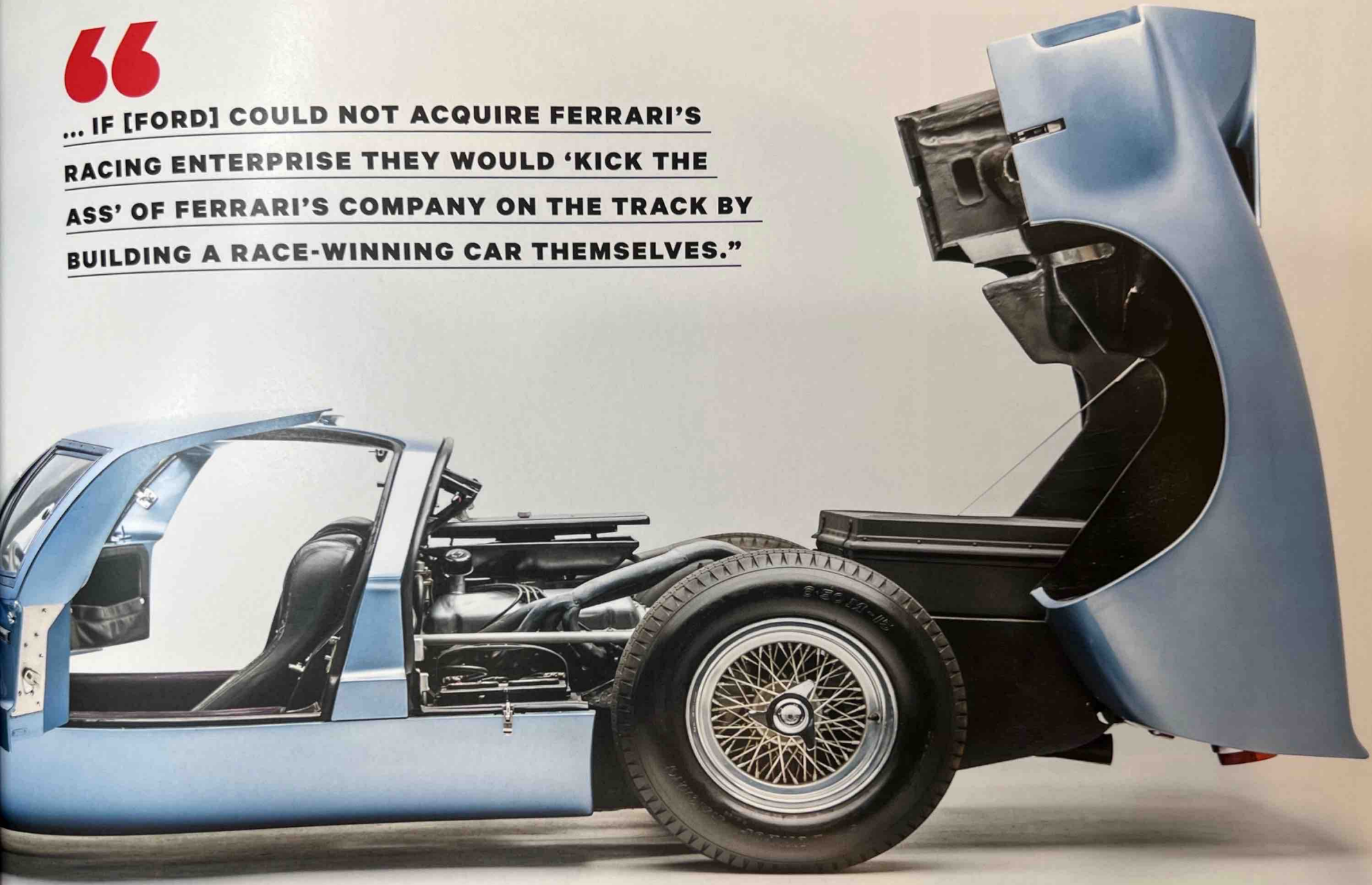
1967 Ford GT40 Mark III

On March 31, 1932, Henry Ford announced the release of a new V-8 engine. The revolutionary engine, which was produced in its original flat-head configuration until 1953, brought eight-cylinder performance to the mass market. But the excitement could not continue indefinitely, and, beginning in the mid-1950s, Ford was facing competition from manufacturers like Pontiac and Chevrolet in the growing performance-car market. Adding to the company's challenges were circumstances that prevented it from fostering and maintaining an association with performance because in 1957 Ford, and every other major American car manufacturer, was banned from participation in motorsport through an agreement prompted by the American Automobile Manufacturers Association. By the 1960s, Ford had lost much of its control of the performance-car market.

In a case of unusually bad timing, a new group of performance-oriented consumers emerged just when Ford was at its lowest ebb in performance product offerings. Encouraged by low fuel prices and a new extensive highway system, these buyers favored fast,

The GT40's purposeful cockpit and outstanding engine accessibility underscore its race-bred heritage.

“... IF [FORD] COULD NOT ACQUIRE FERRARI’S RACING ENTERPRISE THEY WOULD ‘KICK THE ASS’ OF FERRARI’S COMPANY ON THE TRACK BY BUILDING A RACE-WINNING CAR THEMSELVES.”



exciting vehicles. They also had money to spend. Unfortunately, Ford was saddled with a lackluster image that it had acquired in the mid-1950s and was left with little ability to market to this exuberant audience, a reality that company sales reflected. In the 1960s, Ford President Lee Iacocca decided it was time for a change. In April of 1963, he started the "Total Performance" campaign in an effort to revive Ford's high-performance image. Iacocca also withdrew from Ford's agreement with the AMA to ban racing, leaving him free to plot a course that would get the company back on the track.

But Ford's prior agreement with AMA that banned factory-sponsored racing left them with no racing team, no racing development staff, and no cars with which to race. Reasoning that the simplest and cheapest way to develop such vehicles quickly was to buy an existing racing team, Ford began negotiations with the Italian automaker Ferrari, which was already looking to off load its production-car business and, unknown to Iacocca, had even approached Ford earlier looking for such a merger. In about 1962, Henry Ford II began talks with Ferrari, laying out plans for a Ford-Ferrari relationship. The acquisition of Ferrari was set at a price of $18 million and would give Ford access to Ferrari's patents and technology. Under Ford ownership, Ferrari's production-car division would be renamed Ford-Ferrari. A separate racing division called Ferrari-Ford was also to be established, giving Ford the foothold in motorsport that it needed.

As negotiations continued, however, Enzo Ferrari became disenchanted with the idea of being part of such a large corporate enterprise. In a pivotal meeting between Ferrari and Ford executives, the Italian automotive magnate reportedly asked Don Frey, the assistant general manager at Ford, "If I wish to enter cars in Indianapolis and you do not wish to enter cars in Indianapolis, do we go or do we not go?" To which Frey replied, "You do not go." Ferrari responded bluntly, "It was nice to know you." Negotiations between the two companies ended almost immediately, and Ferrari later struck a deal with Fiat.

This snub by Ferrari gave Ford motivation to pursue the racing venture using a new approach.

The purposeful stance and aggressive frontal aspect betray the GT40's racing heritage.

In the words of Henry Ford II, if his company could not acquire Ferrari's racing enterprise they would "kick the ass" of Ferrari's company on the track by building a race-winning car themselves. And the primary weapon in Ford's battle against Ferrari was to be the Ford GT40 racing car. Named in part for its low height, which was only 40 inches from road to roof, the GT40 had development problems to overcome but was ultimately so successful that the cars took first, second, and third place at the 1966 24 Hours of Le Mans and won at the famous venue again in 1967 and 1968. These victories not only established Ford as a serious contender in international racing but helped the company fulfill its goal to beat Ferrari. They also resulted in the production of a number of Ford GT40 road cars.

During the time the GT40 Mark I was being sold, Ford was planning to produce another version for the road, this time with slight modifications, to be called the GT40 Mark III. Like the Mark I, the GT40 Mark III had a slightly pliant suspension and more interior amenities than the racing GT40s. It was also distinguished from the Mark I by its road-legal headlights and rear bodywork that was extended

by eight inches, giving it more space for luggage. Ultimately, only seven GT40 Mark III's were produced. One of them was the 1967 Ford GT40 (chassis number 1105) in the Petersen Automobile Museum's collection, which was built for and purchased by Austrian conductor Herbert von Karajan. Best known for conducting the orchestra for the movie soundtrack to Stanley Kubrick's *2001: A Space Odyssey*, von Karajan drove his GT40 sparingly–and never in the rain.

Like many of its racing cars, Ford built chassis 1105 at the company's Special Vehicle Operations unit in Slough, England. It was one of the four Mark III's to be configured with left-hand drive and was also specially painted Metalichrome ice blue and fitted with Maserati air horns and a modified head rest prior to delivery. It was powered by Ford's well-proven small-block 289-cubic-inch, 306-horsepower V-8 engine. Though Ford would once again withdraw from racing in the 1970s, the production of the GT40 and its road car derivatives survive to illustrate Ford's willingness to reinvigorate its performance image whenever consumer interest might prompt it to do so; a strategy it has revisited on more than one occasion since. P – *KF*

FREE WHEELER

1948 Davis Divan

Four-abreast seating, hidden headlights, and a three-wheel configuration distinguish the Davis as one of the most daring designs of its era.

There are countless automobiles that are interesting because of subtle differences that set them apart from other vehicles. Others are interesting because of their complete departure from any prevailing styling and engineering norms. The cars built by Glenn "Gary" Davis–with their aircraft-inspired styling, aluminum body construction, and three-wheel configuration–fall squarely into the latter category.

Flush with money from achieving success in the used car business, Gary Davis was in good company in those optimistic days immediately after World War II. Because while major manufacturers were spooling up vehicle production to prewar levels and beyond, plenty of aspiring automakers with money to invest saw their chance to enter a market that was clamoring for anything new. Many of them saw an opportunity to create cars that were futuristic looking and chock full of Buck Rogers-style innovation. And some of them did just that.

By late 1945, it had been three and a half years since automobile manufacturers were allowed to build civilian vehicles again. This is because the production of all civilian cars was suspended by law on February 22, 1942. As if to add insult to injury, the last few weeks of prewar production even saw virtually every piece of chrome trim on new cars replaced by trim that, instead of being plated, was simply painted contrasting colors.

Although the lack of sparkle made it difficult to cut a dashing figure out on the highway, it all became a moot point when the government stepped in to buy and stockpile every car that had not already been contracted to be purchased privately during the months before the shutdown. The cars remained in storage until government permission was given to sell one or more of them to essential workers who were deemed vital to the continued operation of important industries.

But with the end of the war, it was like the floodgates had opened. New cars first trickled out of the factories; then the trickle became a flow. Then it became a torrent, as eager Americans–weary of wartime limitations on gas, tires, and even cars themselves–raced to car dealers to spend money they had earned during the conflict. Sensing a "now or never" opportunity, dozens of new car manufacturers sprang up throughout the country.

Some startups built only one or two prototypes (such as the tiny Del Mar and Airway, both made in San Diego, California), while others looked for a time like they would offer Detroit some serious competition (like Kaiser and Frazer out of Willow Run, Michigan). Then there were a small number

of others (like Tucker of Chicago, Illinois, and Playboy of Buffalo, New York) whose production numbered only in the dozens, yet they were the most intriguing of all because they left behind just enough cars to tease the world into wondering how things might have been if only they had persisted. Gary Davis's three-wheeled wonder was in good company.

Derived from a prewar design built by legendary race car builder Frank Kurtis for millionaire playboy Joel Thorne, the Davis Divan was touted as the car of the future. Kurtis's three-wheel precursor to the Davis, called the Californian, represented a complete departure from prevailing automobile design practice. Its single front wheel enabled it to make incredibly tight turns, and its bullet-like shape looked like it could penetrate the air with great efficiency.

Thorne was delighted with the Ford-flathead-powered Californian and drove the quirky car so frequently that Gary Davis could not help but notice it. He acquired the car from Thorne in 1945 and then seized upon the idea to mass produce and sell an updated version of it. He believed that there were few things America wanted more than a vehicle with a lozenge-like futuristic appearance and three-wheel configuration. Plans for the car were soon drawn up, raw materials sourced, employees hired, and a factory site secured. By November 1947, the Davis was ready for its debut at the chic Ambassador Hotel in Los Angeles.

Affectionately called "Baby," the first car off the assembly line was unique in that it was the only one equipped with a fixed roof and retractable jacks at each of its three wheels. But outwardly it differed little from the 11 other pilot production cars, all of which were built on a makeshift assembly line at a 57,000-square-foot disused aircraft assembly plant in Van Nuys, California. The second car was called "Delta" and featured a removable hardtop, as did all subsequent models, which were dubbed "Divan" after the plush, comfortable sofas that

populated most living rooms of the day.

At first the enterprise looked promising. The Frank Kurtis design seemed to be viable, Gary Davis had raised $1.2 million to get the project going, and no fewer than 300 franchisees were signed up to sell Davis cars. Employees were promised double wages if they would defer their pay until the company became profitable, which seemed a sure thing given how much publicity the car attracted with claims of 50 miles-per-gallon fuel economy, a 100 miles-per-hour top speed, and a price of just $995. There were even plans to build a delivery car and a large, two-door sedan, complete with a back seat, that was capable of seating seven people comfortably.

The press was eager and hopeful, but problems including material shortages and a severe lack of capital prevented Gary Davis from realizing his dream of mass producing his car. Employees desiring back wages, investors, and impatient would-be dealers and buyers who had put deposits on cars they never received brought legal action against Davis. By May of 1948, he was under investigation by the Los Angeles district attorney, and in November his offices were raided and company business and financial records were seized.

Down but not out, during this time Gary Davis, along with a handful of devoted believers, was able to design and build prototypes of a military Jeep that the US Army took seriously enough to begin testing at Aberdeen Proving Grounds in Maryland. But a three-wheeled jeep was determined not to be what they were looking for in a utility vehicle, and the idea was shelved. In 1950 a group of investors attempted to make the company viable, but failed despite a great deal of press that sprang from a second wave of enthusiasm when a Davis appeared on the August 1950 cover of *Motor Trend* magazine, a Petersen publication.

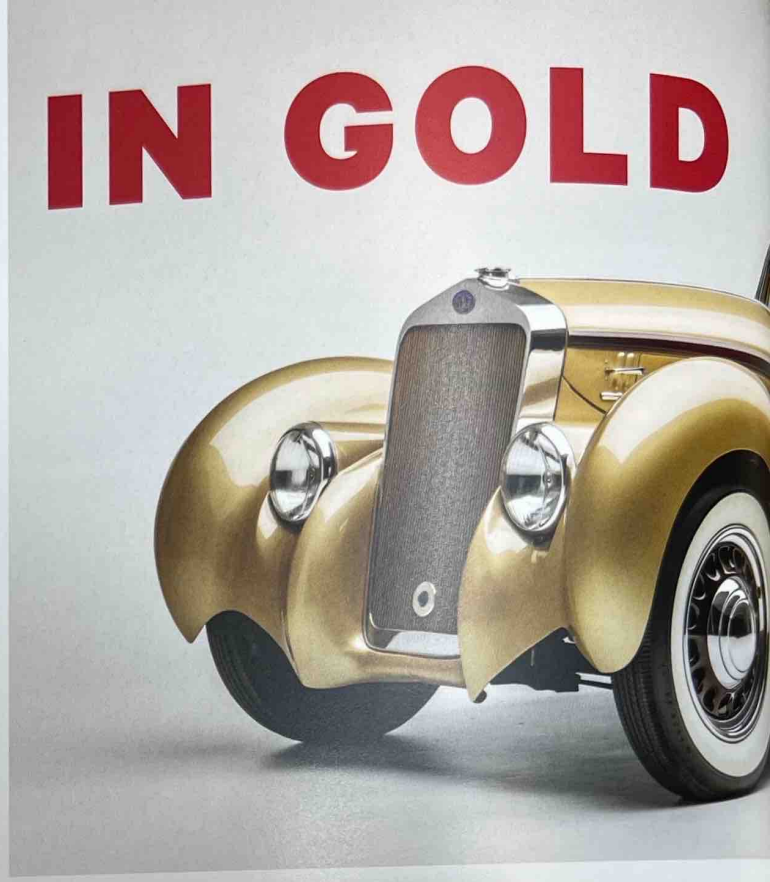
Things did not go Gary Davis's way during his trial: he was convicted on 20 of the 28 counts of fraud brought against him and imprisoned in a minimum security prison for 8 months to two years in 1953. Coincidentally, this was the same year that the Reliant Company in England acquired one of the vehicles for experimentation and possible production, only to abandon the idea and allow the car to be scrapped years later for nonpayment of import duties. The saga ended in 1954, the year Davis was released from prison. He steadfastly maintained his innocence for the remainder of his life.

Although some sources report that up to 17 Davis vehicles were built before production was halted, just 13 passenger cars and three "jeeps" have been accounted for. Bearing serial number 482E49, the Petersen Automotive Museum's 1948 Davis is the fourth passenger car built and one of very few with a continuous ownership history. One of its owners was a donut shop in Colorado that used it as an advertising sign, but despite the lack of care it was afforded, it remained intact and today retains its original 60-horsepower Hercules four-cylinder engine, Ford transmission, and removable hardtop.

Driving the Davis is a memorable experience, not because of its performance and handling–which are appalling–but because of its ability to attract the attention of motorists and pedestrians in a way that even a Ferrari or Duesenberg cannot. Few things capture the attention of other drivers and the popular press better than a car with only three wheels. A Davis today proclaims one's individuality in the same way that it did more than half a century ago. Gary Davis's innovations speak volumes about his valiant effort against enormous odds, and our automotive landscape is richer because of him. — *LK*

GLAMOUR IN GOLD

1937 D8-120 Aérosport Coupe by Letourneur et Marchand



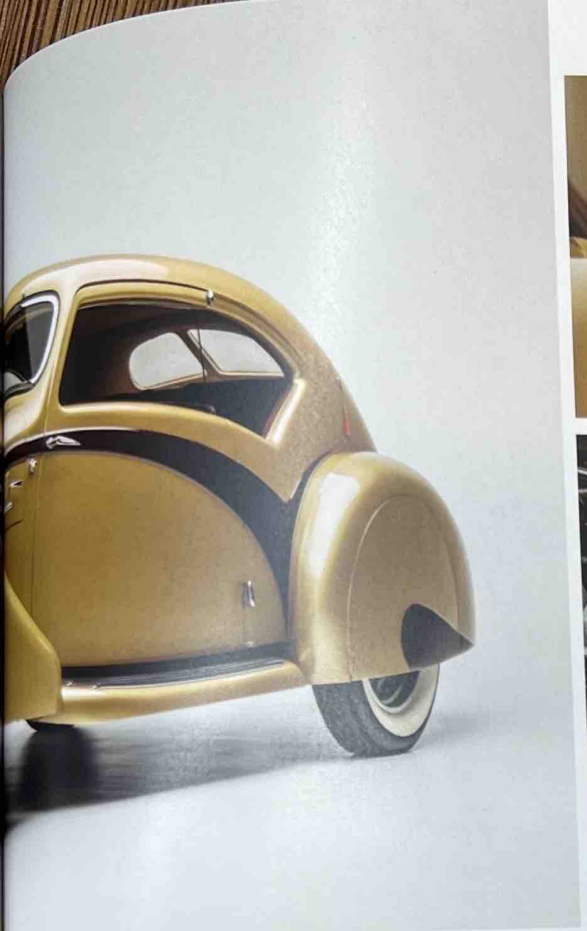
Pierre Louis Adolphe Delage founded the Delage Automobile Company in 1905. The son of a French watchmaker, Delage earned an engineering degree by age 19, then rapidly made a name for himself producing light cars, known as voiturettes, which featured single-cylinder engines developed by De Dion Bouton and Edouard Ballot. Like many other aspiring manufacturers, Delage entered racing as a way of promoting his automobiles, and he claimed his first victory at the 1906 Coupe de Voiturettes at Dieppe. Numerous other wins placed him at the forefront of technological innovation, contributed to increased sales, and enabled both his cars and his company to increase substantially in size.

With the onset of the First World War, the large majority of Delage's efforts were redirected toward the production of munitions, with only a limited number of vehicles being produced for the war effort. Following the end of the war, Delage resumed production with a focus on larger vehicles that would ultimately come to typify the "Roaring Twenties," thanks in large part to the coachwork with which they were endowed by some of Europe's most renownd coachbuilders. Returning to racing in 1923, Delage's company was able to continue promoting its vehicles with impressive performances on the track, and by 1927 the firm had reached its zenith with wins in the Grand Prix de l'Ouverture as well as the Grands Prix of France, Spain, Britain, and Europe. Having accomplished such a momentous achievement in racing, Louis Delage turned his attention to production vehicles, introducing his new top-of-the-line D8 at the 1929 Paris Auto Salon.

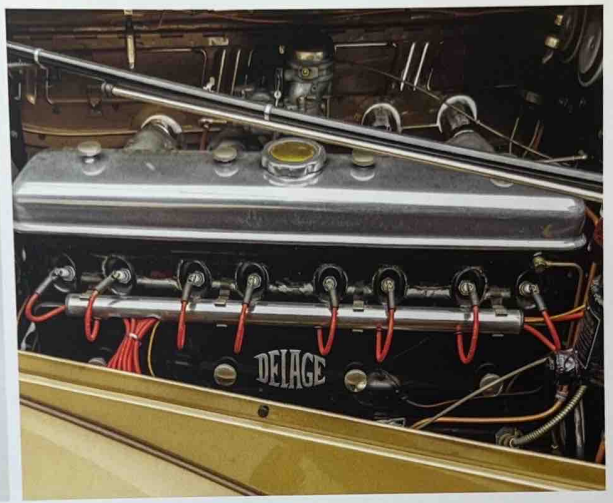
Developed by Maurice Gaultier, the D8 initially featured Delage's straight-eight-cylinder engine, and no fewer than 18 different body styles were made available on a choice of three chassis lengths. Bare chassis were also made available to discerning clients that preferred to have their cars coachbuilt, with the longer chassis intended to accommodate the larger, more luxurious limousine and town car bodies of the time. The debut of several specially bodied vehicles for the concours d'elegance circuit contributed to Delage's status as a top luxury brand. Like with expensive models introduced at the time by other high-end manufacturers, the introduction of the D8 coincided with the stock market crash of 1929. And while the financial crisis of the Great Depression did not seem to threaten the company initially, by the mid-1930s Delage found itself struggling to find customers for its impressively engineered, extremely expensive automobiles, and Louis Delage was forced to file for bankruptcy in 1935.

Through a voluntary liquidation, Delage's rival Delahaye eventually acquired the company's assets. Recognizing its reputation in both racing and luxury automobiles, Delahaye chose to retain the Delage marque but limited its range to two eight-cylinder models for the 1936 model year–the D8-100 and D8-120. Using a modified Delahaye steel ladder-frame chassis as a basis, the new D8 models were powered by eight-cylinder engines that were developed by Delahaye engineer Jean Francois. Based on Delahaye's 135MS straight-six racing engine, but with two additional cylinders, the 4.3-liter overhead valve Delage D8 engine produced 105 horsepower, figures that were soon increased to 4.5 liters and 115 horsepower. Delahaye paired the new engine with a semi-automatic Cotal electro-magnetic gearbox that enabled a driver to shift without using the clutch by means of a small lever mounted on a stalk projecting from the steering wheel column. Reverse was selected independently of the Cotal transmission, theoretically also allowing for four reverse speeds as well as forward.

The increased horsepower of the D8's engine provided more-than-adequate torque and could propel the luxurious cars to speeds approaching 95 miles per hour, helping to secure the vehicles' reputation for comfortable, long-range touring. Like most luxury cars of the day, the new D8-100 and D8-120 models could be purchased in chassis form only, and their extreme length gave Europe's leading coachbuilders the freedom to create streamlined cars with fashionably long hoods and dramatically sloping rear decks. Among



A drop beltline, hardtop styling, and outside exhaust established the Delage one of the most distinguished cars of its day.



the coachbuilders who made bodies for Delage chassis were Saoutchik, Chapron, and Pourtout. But it was Letourner et Marchand of Paris that created the ultimate expression of sporting luxury with the Delage Aerosport.

Founded by ambitious coachbuilders Jean-Marie Letourneur and Jean-Arthur Marchand in 1905, the same year of the founding of Delage, the firm of Letourneur et Marchand had created several one-off styles for manufacturers such as Delage, Buick, Renault, Delahaye, Panhard, Rolls-Royce, and Bugatti they also produced a small number of small-series customs for manufacturers under the trade name Autobineau. Clearly intended for the very top of the market, the Aerosport was largely the work of Marcel Letourneur, the brilliant young son of company co-founder Jean-Marie, who joined his father's company in 1928. Having drawn several noteworthy designs for Bugatti, Hispano-Suiza, Minerva, and Voisin, Marcel Letourneur came to be ranked with Jean Bugatti and Georges Paulin as one of the finest French body designers of the Art Deco era.

Marcel Letourneur was ultimately responsible for spearheading the trend toward lower, sleeker lines that embodied the early research by aerodynamicist Jean Andreu. Possessing one of the most dramatic streamlined profiles of the day, the Aérosport featured an impressively long hood, flowing fenders, and external chrome-plated exhaust pipes. Its pillarless side window profile swept across the car and downward, producing both a dramatic appearance and an unobstructed, panoramic view from inside. A subtle fin on the trunk suggested advanced engineering and high-speed capability. The design was so highly regarded that a Delage D8 Aerosport was one of just two vehicles chosen to represent the French Government in its automotive display at the 1939 World's Fair at Flushing Meadows, New York.

Availability of the D8 Aérosport lasted only from 1936 through 1939, during which time a scant 14 were built. The Petersen Automotive Museum's Aérosport–one of just seven documented survivors–is believed to have been owned by Aga Khan III, 48th Imam of the Shia Ismaili Muslims, and was discovered completely intact inside a barn in France during the early 1990s. After a meticulous restoration, which included the car being repainted its original medium-gold metallic with maroon accents, this Delage Aérosport appeared at the 1999 Pebble Beach Concours d'Elegance, where it was awarded the French Cup, the most coveted prize such a vehicle can receive and a nod to its unparalleled ability to capture the attention of even the most seasoned connoisseurs. — *JH*

LITHE & LOW

1953 Bosley GT Mark I

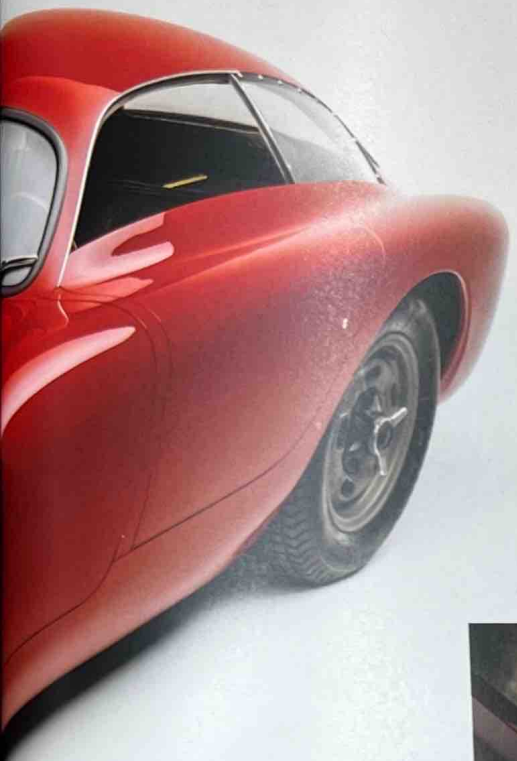
One of four children born to plant growers Paul and Edith, Richard Bosley grew up during the Great Depression on his family's nursery in Mentor, Ohio. After receiving his degree in horticulture from Ohio State University, Bosley served as a commissioned officer in the US Army Reserve until 1957, as one of only a few Army captains to command at sea. During the Second World War, he became interested in sports cars, and in 1951 he purchased one of his first Jaguars in Cleveland, where he also became a charter member of the Cleveland Sports Car Club and an early member of the North-East Ohio Region of the Sports Car Club of America (SCCA), for which he officiated at the first International Grand Prix in Sebring, Florida. He was also a charter member of the Ecurie de Sport in Painesville, Ohio, and attended races throughout the United States during the 1950s and 1960s.

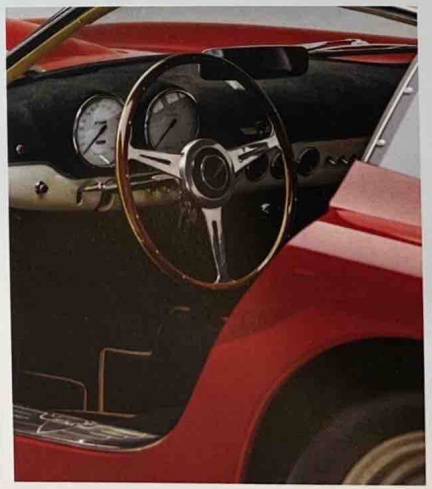
It was through his involvement in racing that Bosley became interested in constructing a sports car, a prospect that he took seriously, according to family accounts, after his Jaguar was beaten in an acceleration run by his mother's Oldsmobile. With no prior car-making experience, Bosley learned "on the job" while building the car, which he dubbed the Mark I and built using parts from several automotive manufacturers. As Bosley has explained, "I had wanted to build a car for several years but lacked the knowledge required to form body panels, and it was about this time that reinforced plastics were becoming a practical material for hand lay-up." Selling his Jaguar to finance the endeavor, Bosley spent the entire summer of 1952 planning and designing the Mark I, which he began building in September of that year.

In order to give himself more flexibility in designing the body entirely to his own design rather than adapting it to fit an existing chassis, Bosley began by constructing his car from the frame up.

The chassis was a ladder-type design built from 16-gauge, four-inch steel tubing for rigidity. A dual-purpose sports/racing car, the Mark I would be powered by a potent 331-cubic-inch Chrysler Hemi engine with a four-carburetor Cunningham manifold, which was capable of producing 225 horsepower. The engine was mated to a five-speed overdrive transmission built by the New Process company. The car's double-wishbone front suspension was adapted from a 1950 Ford, and the rear suspension was constructed using a 1948 Mercury quick-change rear end, which Bosley patterned on a Le Mans-winning C-Type Jaguar. Braking was by means of 12-inch Lincoln drum brakes on all four wheels, which were fitted with magnesium center-lock wheels. The car's speedometer and tachometer were built from Ford police instruments and, in order to make the car more competitive for long distance endurance races such as Sebring, Bosley

Designed and built by Ohio native Richard Bosley, the Bosley GT could easily be mistaken for a coachbuilt Italian sports car.





fitted the Mark I with a 55-gallon gas tank.

The platform that Bosley constructed for the Mark I provided the ideal base for the fiberglass body that he had in mind. Owing to his abiding interest in innovation and design, both in his nursery business and in racing, Bosley had become familiar with the application of new materials, such as fiberglass, in the construction of automobiles at the time. As a racing enthusiast, Bosley had attended a large number of major events that provided him the opportunity to witness and photograph designs that would contribute to the final look of the Mark I. The result was a low-slung body built to an entirely original design that featured integrated headlights and a sloped roof that hearkened to the sports car designs of Europe's most recognizable coachbuilders. Mounted on a 102-inch wheelbase chassis, the voluptuous body had an overall length of 168 inches, a 48-inch roofline height, and a width of 70 inches. It weighed 3,360 pounds and had an estimated top speed of 160 miles per hour.

Having completed the Mark I in March of 1955, Bosley could only have been very gratified to see it become an immediate sensation and be featured in automotive magazines such as *Motor World* (May 1953), *The Motor* (July 1955), *Road & Track* (August 1955), *Motor Life* (October 1955), *Hot Rod* (October 1955), and others. In 1955 Len Frank wrote in *Road & Track* that the Bosley was the most exciting, gorgeously proportioned shape he had ever seen. Strother MacMinn of the ArtCenter College of Design in Pasadena, California, remarked that the Bosley Mark I had changed the thinking of his automotive design students, whose only influence up to that time was from European designers. According to MacMinn, the Mark I exceeded many of its European contemporaries' self-imposed limitations.

The GT Mark I was intended to serve as the first of a series of limited production endurance sports cars, but Bosley found it difficult to secure funding to produce the car in quantity, and this prototype, which was built at a cost of over $9,000 (roughly $87,000 today), remained the only Bosley GT Mark I ever produced. But the Mark I would not remain Bosley's only foray into automotive engineering. In 1957 Richard Bosley traded the Mark I to Dick Doane, a well-known SCCA racer and GM dealer, for an ex-Sebring Corvette SR-2, which was to become the basis for Bosley's next vehicle, the Pontiac V-8 powered Interstate Mark II. Using the Mark I as early inspiration, Bosley endowed the Interstate Mark II with a low profile, distinctive front end, and a great deal of 1950s flair. And above the hand-made grille, he added a "Carrozzeria Bosley" badge with the image of a pelican adapted from his mother's family crest. But despite improvements over the Mark I, the Bosley Interstate Mark II did not go beyond the prototype stage.

During the 1980s, the Bosley GT Mark I was discovered in near complete, but rough, condition and in need of a total restoration. After being purchased by noted enthusiast Ron Kellogg, the Mark I underwent a four-year restoration that returned it to its former glory. After its post-restoration debut, the Bosley Mark I was once again the feature of many magazine stories and was purchased by Robert E. Petersen about ten years later. Always on the lookout for important historic vehicles, Mr. Petersen could not help but be taken by its extreme beauty and high performance, opinions about the car that have never been in short supply. — *JH*

EB & FLOW

1994 Bugatti EB110

In 1910 Ettore Bugatti established the car company that bore his name, an enterprise that quickly became a symbol of prestige, luxury, and craftsmanship. At first based in Molsheim, in the Alsace region of France, the firm produced exclusive and high-performance vehicles in the era before World War II. Royalty, celebrities, and other wealthy and well-connected aficionados could be counted among early Bugatti owners. The Second World War, however, changed the fortunes of the French company and, by the 1950s, Bugatti had fallen on hard times, ceased automobile production, and in 1963 was absorbed by Hispano-Suiza.

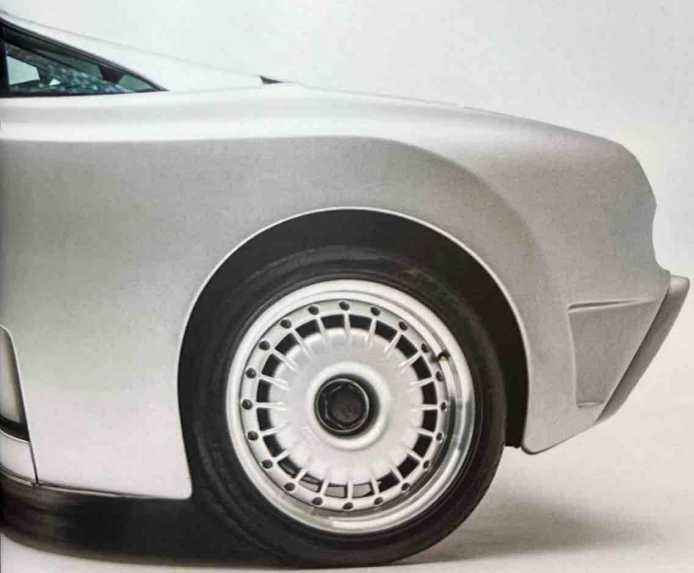
The once proud luxury manufacturer may have remained dormant if not for the ambitions of one man, Italian industrialist Romano Artioli, who in 1987 acquired permission to use the Bugatti name and set out to revive the storied marque. Artioli was no stranger to the automotive marketplace. By the time that he began his Bugatti venture, he had become the first to import and sell Japanese cars in Italy and was the largest distributor of Ferrari vehicles in the country.

The time was right for the emergence of a new supercar. Favorable economic conditions in the 1980s helped drive demand for supercars like the Ferrari Testarossa, Lamborghini Countach, and Porsche 959. Artioli, riding this economic wave, began work on a new Bugatti factory, which opened in the early 1990s. Interestingly, the factory was not built in Molsheim, or anywhere else in Bugatti's home country of France, but rather in Campogalliano near Modena, Italy. This put Artioli's new Bugatti company in the heart of Italy's supercar manufacturing center, close to industry giants like Ferrari and Lamborghini, allowing the company to draw on local talent.

Designed by architect Giampaolo Benedini, the Bugatti factory, also known as the "Blue Factory," was itself a representation of the innovative, high-performance, and technologically advanced vehicles it was constructed to produce. It featured glass walls, Italian marble, and an exterior that was designed to allow in natural light. (Plans called for the use of innovative motorized panels that would move in accordance with the direction of sunlight.) A door from the original Bugatti factory in Molsheim was also installed at the Italian plant. Bristling with state-of-the-art technology and modern testing facilities, the factory was poised to begin production of a daring and innovative supercar. It would be called the Bugatti EB 110.

Built to evoke the mystique of the original, the mid-engine car debuted in 1991 and was called the

Scissor doors and a V-12 engine are in keeping with the advanced engineering evident in all Bugattis.



EB 110 to celebrate the 110th anniversary of Ettore Bugatti's birth. Like the factory in which it was built, however, the EB 110 was to have more in common with the likes of its Italian supercar neighbors than its French predecessors. Foremost among the characteristics that made Bugatti more Italian than French, the first car was designed by noted Bertone designer Marcello Gandini, who also created the designs for some of Lamborghini's most notable models, such as the Miura, Countach, and Diablo.

Gandini's preliminary design was dramatic and angular, but Romano Artioli was reportedly not satisfied with it. So he brought in Benedini, the architect who designed Bugatti's Italian factory, to round out the lines of Gandini's concept and create the EB 110's final styling. Benedini's alterations, however, did not diminish the exotic and dramatic nature of the EB 110, whose design featured a low and wide supercar-style profile, steeply raked windshield, deep side vents, and "scissor" doors that ensured that entering and exiting the vehicle were as much of a spectacle as driving it was. Visually the EB 110 had more in common with contemporary Italian supercars than the graceful French racers from which it was said to have been derived. But Bugatti's heritage was not entirely ignored, and in a nod to historic Bugatti vehicles such as the Types 35, 49, 55, and 57, a precisely proportioned outline of Bugatti's signature horseshoe grille was incorporated into the EB 110's front bumper.

Much like early racing Bugattis, the EB 110's dramatic design was complemented by the outstanding performance of a technically intriguing engine, a turbocharged 3.5-liter V-12 that produced an astounding 552 horsepower and allowed for a top speed of approximately 210 miles per hour. But like with other contemporary supercars and historic Bugattis, this power and prestige came at a high price–$350,000 to be precise–making the EB 110 as desirable and exclusive as its antecedents.

It seemed that Bugatti was off to a good start in the marketplace, but by the late 1990s the economic climate and buyer attitudes had begun to change. The economic boom of the late 1980s in Italy was subsiding, and around the world the economic prosperity that had driven the success of Artioli's Bugatti company had vanished. By the time the EB 110 was released, interest in buying an exclusive, expensive Italian supercar had significantly declined. With mounting financial difficulties, in 1995, just six years after Artioli purchased the Bugatti name, Bugatti SpA was declared bankrupt. During this time, only around 100 of the EB 110's base model and 40 examples of the Super Sport model had been produced.

Yet Bugatti was not destined to sink back into obscurity again. Instead, just three years later, the Bugatti mantle would be taken up by Volkswagen, when its chairman, Ferdinand Piëch, acquired the name in a quest to create and market the ultimate supercar. The Bugatti EB 110 in the collection of the Petersen Automotive Museum thus stands not only as a representation of the history of Bugatti but of the unique economic conditions that preceded the growth of the supercar industry in the 1980s. — *KF*

TWIN-ENGINE TERROR

2001 Schafer Twin Engine Flathead Dragster "Flathead Jack"

The 1932 Ford has been admired by both enthusiasts and engineers ever since its introduction during the depths of the Great Depression. Also called the Deuce because of the "2" in the model year, it was the world's first popularly priced car to offer a V-8 engine. This engine proved so successful that, of the approximately 275,000 Ford passenger cars built in the 1932 model year, about 185,000 were equipped with the V-8. In the years immediately prior to World War II and well into the 1950s, a large number of 1932 Fords came onto the used-car market. Their status as secondhand automobiles kept prices within reach of the average American, enabling backyard tinkerers of all ages to acquire them inexpensively, hop them up, dress them up, and campaign them in both speed and beauty contests.

The V-8's low price, light weight, and wide availability eventually made 1932 Fords a popular choice for hot rodders, and an entire industry was built around modifying the V-8 to improve its performance. The nearly limitless possibilities for homespun body and chassis modifications and the way in which they could be combined to give the desired level of performance or to make just the right personal statement yielded an impressive array of vehicles. In addition, the incredible range of available performance equipment allowed enthusiasts to experiment with some interesting–and ingenious–combinations of intake manifolds, cylinder heads, camshafts, magnetos, superchargers, and other over-the-counter equipment sold in speed shops or through mail order by firms that advertised in car-related magazines of the day like *Hot Rod*. Even after more sophisticated Oldsmobile

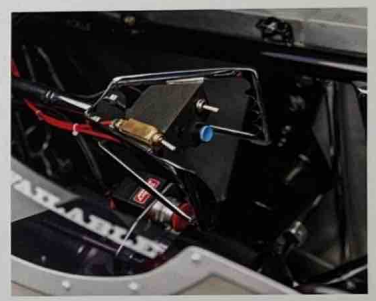
and Cadillac overhead-valve V-8 engines had become more widely available, many enthusiasts continued to modify their reliable flathead Ford V-8s because of the enormous amount of performance equipment that kept them competitive.

Few people are as committed to honoring the legacy of Henry Ford's pioneering engine than "Flathead" Jack Schafer. Racing early Ford V-8s in Redding, California, during the late 1950s, he earned his nickname almost immediately thanks to his demonstrated passion for the easily modified engine and the promise that it held. Like so many other aficionados, he was keenly intent on giving the flathead V-8 outstanding performance by adding his own unique blend of aftermarket touches, which he did with considerable success. And while he eventually left hot rodding in 1969, the move hardly diminished his enthusiasm for Ford's game-changing engine; he ultimately became a leading manufacturer of specially engineered, high-performance Ford flathead engine components.

Reasoning that the best way to promote his business was by proving the quality and capability of his parts in the most practical way possible, Schafer decided to build a dragster from scratch using the same techniques and materials he employed years earlier during the formative years of the hot rod movement, but with one change: the addition of a second engine. Like with passenger cars equipped with twin exhausts, dual carburetors, and matching antennae, the idea of equipping the dragster with highly visible identical components gave it a dramatic look that both added to its appeal as a static showpiece and hinted at its serious potential.

Schafer's approach to increasing power by employing two engines put him in rarefied company that included Ettore Bugatti, who counted among his earliest creations a Prinetti and Stucci tricycle that was equipped with a pair of single-cylinder engines. French automobile engineer Gabriel Voisin also experimented with a straight-twelve that was essentially two six-cylinder engines in tandem. Packard reportedly did the same. But these pairings were more about improving performance on the road than they were for performance on the track. And the drag racing "rail" that Schafer built in 2000 was strictly about performance.

Embracing the idea that a vehicle should look as good as it performs, Schafer made it a priority to imbue his machine with an authentic look, and he drew on some of the best talent available. Keenly aware of those who excelled at their craft, he asked Pete Ogden and Paul Southerland to build a chassis that was light and flexible. He then engaged Greg



Twin Ford flathead V-8 engines give the "Flathead Jack" dragster the performance of a V-16, an engine type not normally used by aficionados of traditional hot rod engineering because of its expense and limited availability.

Westbury of Concord, California, to construct the long, narrow, and purposefully shaped body. Art Himsl expertly painted the finished vehicle. Seen as a whole, the entire composition would be difficult not to regard as a work of machine art thanks to the components that had either been chrome plated, expertly painted, or polished to achieve a dazzling sheen.

At rest, the twin-engine dragster offers a refreshing visual counterpoint to the ubiquitous Chrysler-powered Hemi dragsters and serves as an example of how a competitive two-engine machine might have looked if built during the height of Ford flathead popularity. Underway, it serves as a lesson about what can be achieved with creative engineering and the kind of precision tuning that synchronizes the engines so precisely that it has been described as humming like one massive, 1,040-horsepower V-16. But the dragster was not meant to occasionally start and run for dramatic effect to impress potential customers. The twin-engine masterwork was built to participate in exhibition races piloted by drivers such as Sammy Hale, Jack Harris, and Bill Dunlap, who achieved times as fast as 7.86-second runs in the quarter mile at a speed of 182.4 miles per hour.

Having proved the soundness of the design to the world, Flathead Jack Schafer was soon invited to run serious races at many of the best-known venues in the country, ultimately setting records including two that were achieved in the span of just two days at Bakersfield during the United States Fuel and Gas Championship. Widely published photos of the twin-engine dragster taken during mid-burnout attest to the effectiveness of Schafer's promotional strategy. Still run today, the dragster ranks among the most appreciated vehicles participating in nostalgia drag racing. — *LK*

2001 Schafer Twin Engine Flathead Dragster "Flathead Jack"

BELLISSIMA!

1959 Chevrolet Corvette Italia by Scaglietti

The sleek Italian coachwork offers a bold counterpoint to the Scaglietti Corvette's unmistakably American underpinnings.

The history of the Scaglietti Corvette begins with Gary Laughlin, a wealthy Texas oil man, former WWII Marine pilot, and gentleman racer. Laughlin had become a successful oil prospector, drilling and producing oil in West Texas before eventually expanding into New Mexico, Louisiana, South America, and Africa. It seemed only natural that his interest in oil was followed by a passion for the kinds of machines that would be stranded without it. Long a racing aficionado, Laughlin entered his first competition car–an Oldsmobile-powered Allard J2X–in the 1953 Pebble Beach race, which he won despite it being his first track appearance. He later switched from racing the Allard to racing a Ferrari 166MM at Palm Springs in 1955 and, after a successful season, graduated to a Ferrari Monza.

It was after experiencing a crankshaft failure in his Monza–an expensive mechanical failure requiring a long wait for replacement parts–that Laughlin began to consider building a race car based on an American chassis and powertrain. Since he owned a Chevrolet dealership in addition to his other interests, his attention turned immediately to the Corvette, whose performance had improved substantially since its introduction in 1953 under the influence of a dedicated team of engineers led by Zora Arkus-Duntov. By the late 1950s, Duntov and his team had transformed the Corvette from a docile boulevardier into a viable basis for Laughlin's vision of a coachbuilt European custom with inexpensive and reliable American underpinnings.

Having been an active participant in American sports car racing, Laughlin got to know many of the sport's key figures. Among them were fellow Texans Jim Hall and Carroll Shelby, who were equally interested in building vehicles powered by American V-8 engines to challenge the dominance of European race cars. Laughlin met with Hall and Shelby to

“... THE ADOPTION OF LIGHTWEIGHT, EUROPEAN-STYLE ALLOY COACHWORK WOULD ALLOW THE CORVETTE TO REACH ITS FULL PERFORMANCE POTENTIAL.”

discuss an Italian-American hybrid that would offer the distinction, performance, and style of a Ferrari but also the power and reliability of an American performance giant. The three men believed that, in addition to alleviating the long wait for replacement parts from overseas, the adoption of lightweight, European-style alloy coachwork would allow the Corvette to reach its full performance potential. With the help of Chevrolet General Manager Ed Cole, three 1959 rolling chassis, purchased at a reported $2,500 each, were discreetly shipped from the St. Louis Corvette plant before their bodies were fitted. One of the chassis was equipped with a 315-horsepower Ramjet fuel-injected V-8 with a four-speed manual transmission, while the other two featured twin four-barrel carburetors and automatic transmissions.

During one of his frequent trips through Europe, Laughlin met with Sergio Scaglietti, an Italian coachbuilder to whom he had been introduced by Pete Coltrin, an American journalist and Italian correspondent for *Road & Track* magazine. Laughlin was able to strike a deal with Scaglietti, and shortly afterward the three chassis were shipped to Italy. At the time, Scaglietti was working on Ferrari’s Tour de France, which would serve as an inspiration. It was not only the right look for the Corvette, but Scaglietti’s aluminum bodies offered significant weight reduction compared to the fiberglass bodies of the stock Corvette, which by some estimates reduced the weight of the factory-produced Corvette by 400 pounds.

Despite being produced as a set, the three cars hand-built by the Carrozzeria Scaglietti were not identical. The first vehicle was slightly more rounded and was fitted with a plastic windshield and Corvette grille, which many believe Laughlin specified to appease his collaborators at General Motors. The second and third coupes have a greater resemblance to one another, in part because both follow the design of the Ferrari Tour de France more closely than the first. The wider dimensions of the three Scaglietti Corvettes also had the effect of allowing for large interiors that even when “completed” still remained partially unfinished since no provisions had been made in Laughlin’s deal with Scaglietti to complete the cars’ interiors.

The three Scaglietti Corvettes arrived in Texas in the fall of 1960, almost 18 months after the chassis had been obtained, bringing the total time needed to take the cars from conception to completion to almost three years. After arriving in the United States, the interiors of the three cars were finished with numerous American components, such as Stewart Warner gauges, a crinkle-finish dashboard, deeply bolstered leather seats, and door hardware. Strangely,

A purposeful cockpit and powerful fuel-injected engine compliment this Corvette's Italian good looks.

they were never equipped with side windows, although channels were built into the upper door structure to secure them. Laughlin took delivery of the first car only to sell it a short time later. Hall also took possession of one of the cars, but retained it only slightly longer than Laughlin before eventually selling it as well. The last of the three cars was intended for Carroll Shelby, but he refused delivery, and it was sold almost immediately.

Despite Laughlin, Hall, and Shelby having seen the Italian-coachbuilt Corvette project through to completion, the endeavor was not without controversy. According to legend, at some point in the construction of the three cars, Enzo Ferrari had visited Scaglietti's shop and, upon viewing the three bodies side by side, told Scaglietti, "If you do one more, you'll never do another car for me." While in America, tensions arose at General Motors between Chevrolet Division Manager Ed Cole and Zora Arkus-Duntov over the prospect of building a lightweight Corvette. In a convincing discussion with the GM chairman at the time, Duntov expressed that Cole's plan would create an unnecessary second sports car for GM, which would compromise his department's development of the Corvette. According to Carroll Shelby, Cole had been chastised by GM management and told to drop the project.

Over the years, the three Scaglietti Corvettes have changed hands frequently, moving between various high-profile collections around the world. In addition to receiving different engine and transmission combinations, successive owners have also added styling elements such as scoops, fender vents, and driving lights to enhance their appearance. To date, both the Laughlin and Hall cars remain in private collections, while the third car–and the very vehicle originally intended for Carroll Shelby–became a part of the Petersen Automotive Museum collection in 2000 and remains on display for all to see. — *JH*

ARMORED & READY

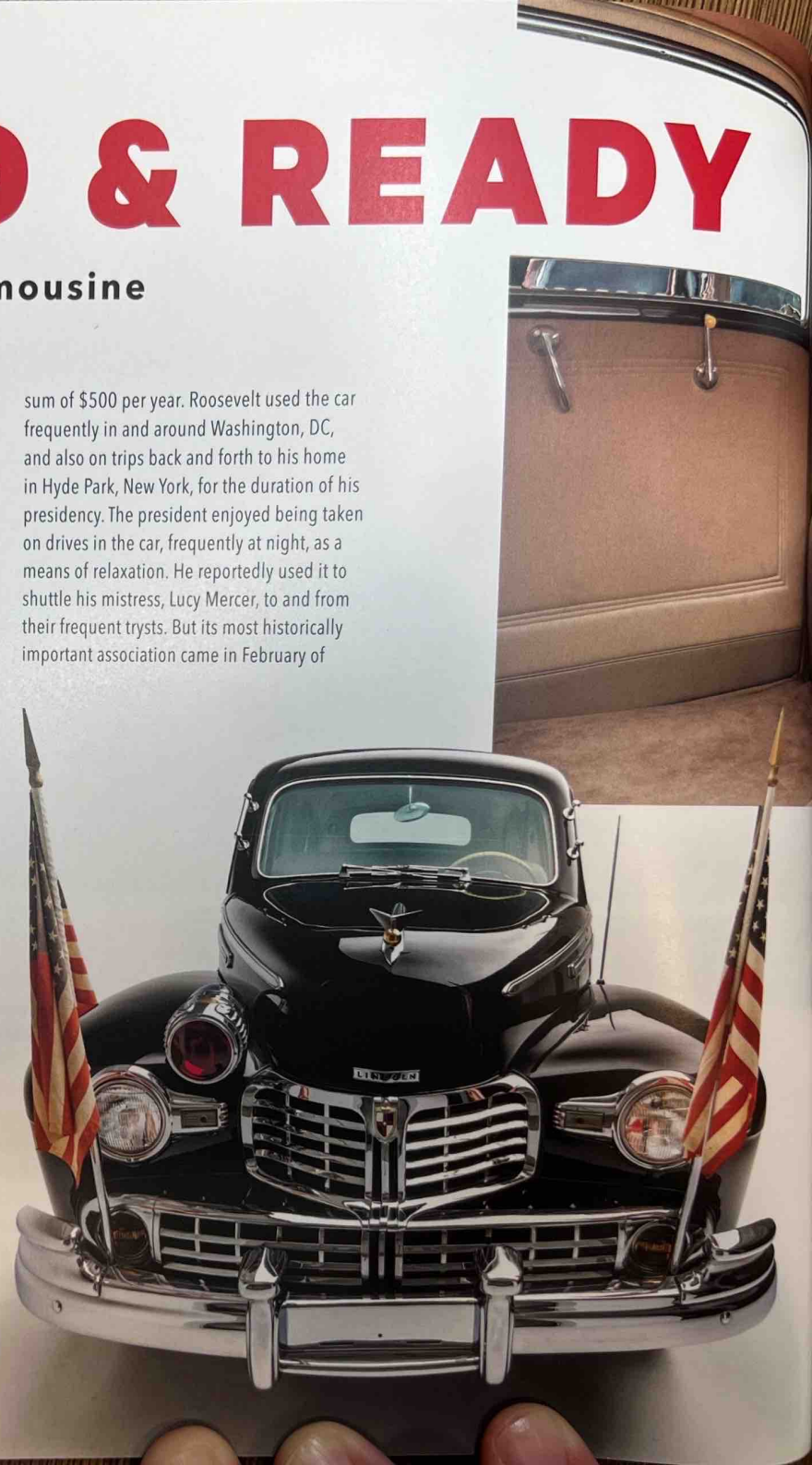
1942/46 Lincoln Custom Armored Limousine

When the United States entered World War II, the need to provide President Franklin D. Roosevelt with protective transportation was unprecedented, but the authorities were caught unprepared. Acting as quickly as possible, White House Secret Service Chief Michael Reilly obtained a new seven-passenger Lincoln within days of the attack on Pearl Harbor and arranged to have it fully secured. This imposing 1942 limousine became the first presidential vehicle to be delivered new with full protective armoring. It was the 59th of just 66 Lincoln Custom Limousines built during the abbreviated 1942 model year, in which all automobile production was shut down in February and the factories converted to supply the war effort.

The limousine bristled with security features that were considered state of the art in their day. Heavy steel plates lined the doors, roof, engine firewall, gas tank, transmission hump, trunk bulkhead, and underside of the car. Even the inside of the engine compartment was lined with heavy wire mesh to stop bullets while allowing cooling air to penetrate. Other modifications included an extra-capacity radiator and larger fan; heavy-duty generator; Hydravac power brake assist (first developed for aviation use); double-tone, long-roll siren; hand grips and step plates for Secret Service agents; flag holders; heavy duty springs and shock absorbers; and a rear-mounted antenna for one of the first FM radios ever installed in a motor vehicle. Practicality dictated that two additional cowl vents be added, not for the comfort of front-seat passengers, but to better exhaust hot air from under the hood.

All windows were nine-ply, 1 1/8-inch-thick glass, but unlike modern state vehicles in which windows are permanently fixed for maximum security, those in the doors of the car could be rolled up and down with little effort thanks to four heavy-duty springs that served to counterbalance the heavy glass. To cover the large open area into which the glass descended inside the doors, chrome-plated covers hinged upward when the windows were raised and down when the windows were lowered in order to present a neater, more finished appearance and to keep foreign objects that might have interfered with the window winding mechanism from falling into the gaps. To accommodate the bulky armoring and thick glass, virtually every body and door panel was reworked by hand to give the car a normal appearance and thus avoid attracting unnecessary attention. All this heavy protective gear brought the dry weight of the Lincoln to a stout 6,900 pounds, approximately 2,500 pounds more than a standard Lincoln limousine. An unmodified 306-cubic-inch, 130-horsepower Lincoln flathead V-12 engine powered the car, which likely demonstrated extremely poor performance because of the predictably low power-to-weight ratio.

The FBI took delivery of the limousine on March 2, 1942. Aware of the publicity value of having one of its luxury cars associated with a powerful world leader, Ford Motor Company leased it to the Secret Service for the bargain sum of $500 per year. Roosevelt used the car frequently in and around Washington, DC, and also on trips back and forth to his home in Hyde Park, New York, for the duration of his presidency. The president enjoyed being taken on drives in the car, frequently at night, as a means of relaxation. He reportedly used it to shuttle his mistress, Lucy Mercer, to and from their frequent trysts. But its most historically important association came in February of



Although it was fitted with more than one ton of armored plating, the presidential Lincoln limousine retained its virtually stock appearance.

1945 when Roosevelt used it as his ground transportation during the historic Yalta conference with Joseph Stalin and Winston Churchill. Images taken during the conference show Churchill riding in the Lincoln, which had been painted in a subdued matte finish, likely olive drab, which would have disguised its use as a high-level diplomatic vehicle.

When the car was returned to Washington, it was licensed in the state of New York instead of the District of Columbia to conceal its high-profile political connection. Upon Roosevelt's death in 1945, Harry S. Truman adopted the Lincoln, and it was soon returned to Ford Motor Company for refurbishing and to be retrofitted with the front clip of a 1946 model to give it an updated appearance. During the overhaul, Ford also removed the running boards (but not the outside hand grips) and fitted stronger wheels and tires that were so large that the rear fender skirts had to be removed to accommodate them. Truman used the limousine in both Washington, DC, and at his home in Independence, Missouri, until a fleet of sleek, new Lincoln Cosmopolitans could be made ready.

The distinguished but old-style 1942/46 Lincoln was decommissioned by the Secret Service on December 9, 1948, after it was rendered surplus. An offer to donate the historic vehicle to the Edison Institute was declined, and the Lincoln was reported to have been seen on a used car lot near Detroit soon after. By 1962 the once-grand car had come into private hands and fell into disrepair before it was acquired by a small private museum in Colorado Springs whose owners carefully and sympathetically restored it to its postwar configuration. The Margie and Robert E. Petersen Collection acquired the historic vehicle in 2006.

As it had done in the wake of the Pearl Harbor attack, the United States government began to specify that presidential limousines be equipped with ever more advanced security provisions following the 9/11 tragedy. It is no longer enough that a vehicle be capable of stopping a bullet; it must now be able to remain intact and operational after a direct hit from a bomb. Because of the top secret nature of the protective armoring, communications equipment, and mechanical systems, the Secret Service has adopted a policy not to dispose of decommissioned presidential vehicles by means that could allow them to eventually come into unfriendly hands, but to destroy them in bomb and ballistics tests. Such tests serve two purposes: they assist the government in determining the strength of the vehicle's armoring and provide a means to assess the effectiveness of the weapons used in the tests. This policy assures that no additional presidential automobiles will come into public hands, making surviving vehicles like the Roosevelt/Truman Lincoln irreplaceable reminders of a time when armoring was more art than science. — *LK*

CALIFORNIA COUPELET

1918 Ford Model T Coupelet

In 1949 Buick introduced the Riviera, a model regarded by many historians as the first-ever vehicle to feature "hardtop" styling. Not a familiar body style today, the designation "hardtop" describes a vehicle with a fixed roof and side windows that, when down, leave no "B" pillar in the way to obstruct one's outward vision. It was the height of modernity when it was introduced and was said to have been inspired by the wife of a Buick executive who always drove convertibles with both side windows down but never lowered the top. Cadillac was next to introduce a hardtop with their 1949 Coupe de Ville, followed later in the year by the Oldsmobile Holiday. Positioned slightly down market from their corporate siblings, the Pontiac Catalina and Chevrolet Bel Air hardtops did not debut until the 1950 model year. Other manufacturers followed suit to keep pace with the growing trend, but Ford Motor Company was slow to join the fray, and the first Ford to feature true hardtop styling did not debut until 1951. Or did it?

When the automobile became commonplace during the mid-1910s and manufacturers began to use style as a means to attract potential customers, different body types began to emerge, all of which were touted as offering a unique combination of utility and style. Some like the "cloverleaf roadster" and "rumble seat coupe" were defined by their seating positions. Others like the "convertible sedan" and "quarter window Victoria" were defined by their number of doors, passenger carrying capacity, and quantity of side windows. Still others were combinations of other familiar body styles, including the Coupe Landaulet, which featured a fixed roof over its single, full-width seat and a top that could be lowered, but only behind the driver and passenger. Then there were cars equipped with California Tops–rigid, semi-permanent superstructures mounted onto otherwise open touring cars or roadsters.

The California Top offered the protection of a sedan from above and the breezy openness of a phaeton or touring car from the sides. It was touted as the ideal blend between a closed and open car and especially well suited to mild climates such as could be found in Southern California. But more than a regional preference, the California Top was also popular in parts of the country where the gentle, unobstructed flow of cooling air through the passenger compartment was the only relief motorists had from the summer heat in the days before air conditioning. Having more than a mere passing interest in market trends, Ford

carefully tracked consumer preferences at the low end of the market. And while they also paid attention to profit margins, it would be difficult to believe that Ford executives would not have considered a low-volume, low-margin model to be worth the investment if it could be used to lure potential customers to showrooms.

Ford's 1915 model range debuted in September 1914 with the introduction of the Center Door Sedan and a convertible designated the Coupelet. Together, the new models presented buyers with tantalizing new alternatives to existing Ford models and helped stave off competition from the increasingly sophisticated cars of other manufacturers. And while the addition of a sedan to the Ford Model T catalog was inevitable, adding a snug convertible was not. Anything but utilitarian, the Coupelet was labor intensive to build and expensive to buy; the kind of vehicle that had yet to find a market in the low-priced field. Its name a contraction of the words "coupe" and "cabriolet," the Ford Coupelet was a genuine convertible, a body style that offered the weather protection, comfort, and security of a closed car when the top was raised and the joy of open air motoring with the top down. Put simply, it was a closed car that could be "converted" to an open car at will.

The Coupelet can be considered Ford's first true convertible. Whereas roadsters had a flimsy, unlined top for occasional weather protection and a windshield that could be tilted at virtually any angle, the Ford Coupelet had a fixed vertical windshield like the more formal sedan and town car and a weather-tight roof. Doors were hollow to accommodate glass windows that were lowered with fabric straps. The top material was genuine leather. Coupelet bodies were made by the Fisher Body Co. of Detroit, and a completed car was priced at $750. A mere 2,417 were produced for the entire model year. For 1916 the Coupelet top was modified to have tiny windows in response to customer complaints of poor visibility. And while Ford literature also promoted a 1917 Coupelet, the model was redesigned early in the year to have a fixed–instead of folding–roof, which was covered in fabric to give it a passing resemblance to a genuine folding top. To complement the new roof, both side windows were designed to be lowered, and the "B" pillars could be manually removed and stored to provide occupants an unobstructed outward view.

One of the rarest Model Ts built, the Coupelet is distinguished by its light and airy passenger compartment, made possible by removable "B" pillars.

Paying little attention to the typical automaker's approach of introducing significant changes with the beginning of a new model year, Ford again altered the design of the top of the Coupelet mid-year so that it was no longer completely fabric covered. It was yet another change that shortened build time and enhanced production efficiency. And while the new roof was slightly less formal in appearance than the earlier fabric-covered version, it is unlikely to have made a difference to the large number of individuals whose financial circumstances dictated that they buy a vehicle in the Model T's price class. Despite America's full involvement in World War I, production of the Coupelet reached an astounding 14,771 units. For 1919 the Coupelet was redesigned with fixed side pillars that could not be removed or folded out of the way.

While Ford's initial flirtation with hardtop styling came to an end in 1918, other manufacturers and coachbuilders in America and abroad continued to experiment with the concept. A large number of European manufacturers were especially drawn to the design, likely because the elimination of side window pillars made the openings seem correspondingly longer and gave cars a sleeker, more horizontal look. After that it was just a matter of time before America rediscovered the hardtop, a concept that proved essential to achieving the "longer-lower-wider" look so essential to marketing Detroit iron during the jet age. — *LK*

POP OF COLOR

1929 Ruxton Model C Roadster

The 1929 Ruxton was the combined passion of Archie Moulton Andrews, a flamboyant pitchman and stock manipulator, and William J. Muller, a racing enthusiast and engineer. It was sleek for its day and so low slung that, at a time when most American cars were too tall to see over, two people of average size could easily carry on a conversation standing on either side of it. And there was a good reason why. It was based on a concept that dated back to the 1769 Cugnot from France and the very beginning of motorized transportation–front-wheel drive.

The idea of steering an automobile using the same physical system that was used to propel it was as old as the horse and carriage. It was natural for a carriage driver to sit high in the front, tugging the reins while the horses did the actual work of both moving the carriage and establishing its direction. But when a mechanical source of power replaced horses, the engineering required for the drive wheels to both move and steer a vehicle reliably did not yet exist. Beginning with the first purpose-built passenger automobile built by Benz in 1886, the rear wheels did the work of propelling the car while the front did the work of steering it.

But "putting the horse before the cart" in such a way was considered by many to be a less-than-adequate compromise, and countless engineers attempted to correct what they perceived to be a problem. One of the first American engineers to tackle the issue was John Walter Christie, who built about seven front-wheel-drive cars of heroic proportions before 1910, most of which were used for exhibition racing at fairgrounds nationwide, although at least one was configured as a passenger car. Later efforts to market a viable front-wheel-drive car included the 1917 Frontmobile from New Jersey and the 1918 Homer Laughlin from Los Angeles, which was built by the same company that still makes ceramic dishes and pottery.

Both the Frontmobile and Homer Laughlin–along with dozens of other would-be innovators–were engineering and marketplace failures, but it did not matter because by then a racing car built by George Dewitt half a decade earlier had already captured the attention of William J. Muller. Called the Gila Monster, Dewitt's racer inspired Muller to pursue front-wheel-drive technology and served as the inspiration for a road-going vehicle that would use it. But Muller's determination was halted with the onset of the First World War.

Following the "war to end all wars," Muller became the chief road test engineer for the Willys Company before joining the Edward G. Budd Manufacturing Co. of Philadelphia, a builder of rail cars and automobile bodies, in 1920. After firmly establishing his reputation as a gifted engineer, Muller received approval from Edward Budd to build a prototype car that would embody many of the ideas that he believed should be included. Within two years, on a reported budget of $35,000, Muller had built a large and luxurious sedan with a front-mount-

The front-wheel-drive configuration of the Ruxton eliminated the need for a driveshaft, giving designers the flexibility to create a car so low that it did not need running boards.

ed Studebaker six-cylinder engine mated to a Warner four-speed transmission that delivered power to the front wheels.

Because of its unique front-wheel-drive configuration, Muller's prototype vehicle sat lower than most other cars of its time since it did not require that the floor of the passenger compartment be high enough to allow clearance for a driveshaft to run beneath it. By lowering the center of gravity in such an ingenious way, the car offered greater stability at speed and better traction on inclines. The coachwork for the prototype was styled internally by Budd, and the finished vehicle had an overall height that was almost an entire foot lower than its contemporaries. Budd wanted to sell the concept to another company who would then contract them to provide the coachwork. When the prototype vehicle was brought to New York in 1929, it generated much curiosity, but the greatest interest would come from within the company's own ranks.

After viewing Muller's prototype automobile at the Budd plant, Archie M. Andrews, a member of Budd's board of directors, became fascinated by the vehicle. Andrews approached the Hupp Motor Car Company, where he was also a board member, about building the revolutionary new car, but when negotiations failed he decided to produce it himself. According to some accounts, while Edward Budd was out of town early in 1929, Andrews directed Muller to secretly drive his prototype to New York and stash it at the Yale Yacht Club while he went about forming a new company called New Era Motors to build it. Andrews then appointed Muller vice president of the new company and charged him with the responsibility of engineering a production version of the car while he was away seeking financial backing. Believing it would help him secure financing, Andrews named the car after William V.C. Ruxton, a prominent New York stockbroker from whom he hoped to secure the required capital. And even though the capital never materialized, the name stuck.

Within a few months of founding New Era Motors, William J. Muller had engineered a viable production version that was ready for manufacture. Engineering differences from the prototype included the adoption of an eight-cylinder engine and a new transmission that allowed the entire drivetrain to be placed farther forward in the chassis for better weight distribution. Cosmetic changes included side-mounted spare tires and special "Woodlite" headlamps. But the most noticeable difference was the complete elimination of running boards. The vehicle was so low that it simply did not need them.

New Era announced the Ruxton in the spring of 1929, and the car made headlines as the first American front-wheel-drive passenger car. Cord's announcement of the front-wheel-drive L-29 soon followed. But while Cord controlled its own manufacturing and dealer network, Muller and Andrews were still searching for a company interested in producing the Ruxton. Gardner, Marmon, Jordan, Stutz, and Pierce all declined, but the independent Moon Motor Car Company of St. Louis, Missouri, believed that an innovative new vehicle was exactly what was needed to replace their unprofitable Windsor. To gain complete control over his endeavor, Andrews soon seized control of the company from its founder and installed eight new directors to its board.

But even though production had finally begun, it quickly became evident that Moon's aging facilities would be inadequate to achieve the production numbers Andrews was hoping for. His solution was to have the better-equipped Kissel Motor Company, which was already producing the elaborate Ruxton transmission and differential, expand their facilities to produce complete Ruxton automobiles. By September of 1929, the Ruxton was being produced at both the Moon plant in St. Louis and the Kissel plant in Hartford, Wisconsin.

In order to make the Ruxton stand out among its competition, Andrews had recruited Broadway set designer and architect Joseph Urban to create eye-catching paint schemes for several show cars. Using horizontal bands, each in gradations of different colors, Urban was able to emphasize the Ruxton sedan's length and lowness, both of which would be major selling points. Those who responded favorably to the marketing efforts praised it for its roadability and comfort, often above its archrival Cord. But timing was not on Andrews's side, and the Ruxton hit the market mere months after the stock market crash. Despite the superior engineering and style of the Ruxton, there were very few people with $3,195 available dollars–the equivalent of approximately $50,000 today–to spend on a car, and the company could not stave off the financial effects of the worsening economy. In November 1930, after building only 20 vehicles, Kissel entered receivership and Moon declared bankruptcy. With no production facilities left, New Era followed suit only five days later, leaving an estimated 300 to 500 vehicles behind to mark its existence. Of a mere 19 surviving cars, the Petersen Automotive Museum's Model C is one of only four roadsters models known to exist. — *JH*

BOYD'S BOLD BUILD

1992 Coddington Aluma Coupe

Prior to becoming a household name with the 2004 debut of the television show "American Hot Rod," Boyd Coddington had established himself as a revolutionary hot rod designer. Known simply as "Boyd" in the automobile enthusiast community, Coddington took the first steps toward building his hot rod construction business while working the nightshift as a machinist at Disneyland. By 1977 he had left his "day job" to devote all of his attention to his passion, founding Hot Rods by Boyd so that he and a few notable designers could create some of the most recognizable custom vehicles in hot-rodding history.

Coddington's first commission, the Vern Luce Coupe, was a 1933 Ford that was built in his two-car garage in Cypress, California. Working directly with Luce and Thom Taylor, Coddington developed an uncommonly smooth design by the removal or reduction of obtrusive visual elements that could distract from the sinuous lines of the car's overall design. To better highlight the dynamic shape of the body, Coddington incorporated a set of wheels that he custom machined out of a block of aluminum, a process he developed with long-time colleague and mentor John Buttera. It became the first ever use of billet aluminum to machine a set of one-off custom wheels. When the Vern Luce Coupe debuted at the 1981 Oakland Roadster show, Coddington's "less is more" concept earned him the prestigious Sloanaker Award for enclosed vehicles and marked a seminal moment that redefined the hot rod aesthetic. With its sculpted body that created the appearance of dynamic and fluid movement, the Vern Luce Coupe is widely recognized as initiating what came to be known as "the Boyd Look."

The following year, Coddington began competing for the highest honor in the hot rod customizing realm, the America's Most Beautiful Roadster (AMBR) trophy, which he ultimately received seven times, six of them being consecutive. Setting new standards for custom design and fabrication, the use of billet aluminum to machine wheels, as well as a number of other accessories, would become a trademark of Boyd-built hot rods and codify the Boyd look. In 1988, the same year that Coddington was declared *Hot Rod* magazine's "Man of the Year," he founded Boyd's Wheels, Inc. to manufacture and market his custom

billet wheels. Having introduced "Billet" to the automobile aftermarket, Boyd's machining process enabled designers to machine wheels in limited quantities and one-off sets. The venture was so successful that, in the 1990s, Boyd's Wheels became the first automotive aftermarket product manufacturer to put forth an initial public offering on the NASDAQ stock exchange.

In the ensuing years, Coddington continued to push the limits of hot rod designs for a number of high-profile clients, including several private companies and celebrities. Applying his trademark look, Coddington produced highly stylized hot rods and custom cars that married early design style with the smooth look that only modern-build techniques could provide. In 1991, just one decade after the debut of the Vern Luce Coupe, Coddington imagined another groundbreaking hot rod, this time with an all-aluminum body that owed nothing to any other car.

To build what he dubbed the Aluma Coupe, Coddington enlisted the assistance of Cadillac designer Larry Erickson, with whom he had first worked during the late 1980s to create Billy Gibbons's radical custom 1948 Cadillac Sedanette, better known as CadZZilla. The idea for the Aluma Coupe was born on one of Erickson's flights from Southern California to Detroit in 1991, during which he created a basic sketch of a modern mid-engine hot rod. Inspired by the Pierson Brothers' 1934 Ford coupe and Art Chrisman's chopped 1930 Ford Model A coupe, the car was originally intended to be a roadster with an American V-8 engine. But after Coddington was approached by Mitsubishi Chief Product Planner Ron Kusumi about developing a car to showcase Mitsubishi components, the Aluma Coupe was redesigned to include Mitsubishi parts.

Before the debut of the Aluma Coupe, most hot rods were built up from parts adapted from production vehicles in a process that combined methods of both restoration and customization. The Aluma Coupe ushered in an era of all-aluminum body construction that did away entirely with the need for an existing steel body to use as a starting point. Instead, each component was fashioned from scratch at the hands of master fabricator Marcel DeLay. The Aluma Coupe was originally intended to be a roadster but morphed into a closed car for enhanced structural integrity. The body was mounted on a steel tube chassis fabricated by Dave Willey and powder-coated gray to match the independent front suspension. To power the Aluma Coupe, Coddington's team installed a turbocharged 1991 Mitsubishi Eclipse two-liter, four-cylinder twin cam engine tuned by Russ Collins of RC Engineering.

Built from scratch to a unique design, the Aluma Coupe embodies the quality and craftsmanship of coachbuilt vehicles from the height of the classic era.

The Aluma Coupe was finished in a lime-gold pearl acrylic lacquer that was applied by Greg Morrell. Sparse use of chrome trim contributed to the clean lines of the car and provided greater emphasis to the grille, which was hand-formed by Pelle Forsbert. The car was also given a set of Coddington's signature Tri-Fan billet wheels. The car's interior, also designed by Larry Erickson, utilized instruments from a Mitsubishi Eclipse, custom-made Connolly leather seats by Ron Mangus, and a Boyd steering wheel.

Despite the painstaking attention to detail and extensive fabrication required, the Aluma Coupe was completed in only 11 months. The finished product combined the look and feel of a 1950s custom with the engineering, comfort, and refinement of a modern car in a way that blurred existing distinctions between concept cars and hot rods.

In addition to gaining fame as the first scratch-built hot rod, the Aluma Coupe also became the first hot rod invited to be displayed at a major auto show when it debuted in Mitsubishi's display at the 1992 New York Auto Show. Having garnered a substantial amount of attention from journalists and showgoers alike, the Aluma Coupe was responsible for transforming the way automakers perceived hot rods. But its revolutionary design, engineering, and manufacture was not without controversy, and many traditionalists were put off by the shape of the body and the decision to use a mid-mounted Japanese motor.

Whether seen as sophisticated or subversive, Coddington's Aluma Coupe served as another radical reinterpretation of the iconic 1933 Ford coupe. Much as the Vern Luce Coupe had redefined hot rod aesthetics, the Aluma Coupe redefined hot rod building practices and, in the process, changed the very definition of what a hot rod could be. Recognizing the enduring importance of this vehicle, renowned collector, philanthropist, and Petersen Automotive Museum board member David Sydorick purchased the Aluma Coupe in 1993. Seven years later, he donated the seminal vehicle to the Petersen Automotive Museum, where it remains an example of what can be accomplished with skill, imagination, and the courage of one's convictions. P — *LK*

TOP NOTCH

1922 Leach Model 22A Five-Passenger Touring

It may be narrower and somewhat taller than buyers today would prefer, but, in its day, the 1922 Leach was considered one of the sleekest, sexiest cars on the road, preferred by Hollywood celebrities and business leaders alike. Impossibly expensive when new, it exemplified the carefree, youthful persona that Californians had begun to portray. And while the name was anything but glamorous, its outstanding reputation gave it a cachet among the wealthy and alerted the entire nation to how important cars had become in acclaiming one's success on the West Coast.

The Leach, formally known as the Leach-Biltwell, was an ultra-luxurious automobile manufactured by Martin Andrew Leach, a Los Angeles-based entrepreneur who began building bodies for cars at about the same time that Earl Coachworks was in business. But while Earl Coachworks–which had been founded by the father of future GM styling boss Harley Earl–built only car bodies, Leach-Biltwell began making entire automobiles beginning in 1919, with a range of high quality, smartly styled cars that were favorites with silent film stars such as Tom Mix, Gloria Swanson, Betty Blythe, and Marcella Desmond. And while these names may not be well known today, they were among the most highly paid people in the country and as popular in their time as Tom Cruise, Angelina Jolie, Halle Berry, and Julia Roberts are today. Mr. Leach seemed to be in the right place at the right time.

A native Californian, Martin Andrew Leach was

The Leach made use of a "California Top" that combined the openness of a touring car with the enclosed comfort of a sedan.

born in 1879 in Marysville, a gold rush town about 100 miles northeast of San Francisco. He worked in his father's sawmill when he was not in prep school, which he ultimately left to join an Upton, California, lumber company. He must have been a good fit for the business because, soon after becoming a foreman, he went on to work for three other lumber firms, gaining ever more responsibility and eventually finding himself representing a syndicate in the Mexican state of Chihuahua until the start of the Mexican Revolution.

Returning to California, Leach became sales manager of yet another lumber company, and he could not help but notice how common automobiles had become in his home state. By 1914 he parlayed his extensive sales experience into a position as the sales manager of the Dort Motor Co. of Flint, Michigan, for the entire southwestern United States. One year later, he became Dort's regional sales manager, and by 1916 he had established a factory branch for the firm called the Leach Motor Car Co. in downtown Los Angeles in partnership with Oklahoma millionaire Dr. L. Sherman Skelton.

Leach helped Skelton grow his interests in the automobile business, paying close attention to public tastes in the process and becoming experienced at marketing automobiles. In 1917 the Leach Motor Car Co. took over the former service department of the George R. Bentel coachbuilding company, which Leach used as a showroom and service facility. This enabled Bentel to consolidate his Los Angeles operations in a new building next door to Leach, which was close enough in proximity for Leach to observe how successful the coachbuilding business had become. Desiring to focus his efforts on what was a growing industry, Leach resigned his position with Skelton in January 1918 and opened his own body works.

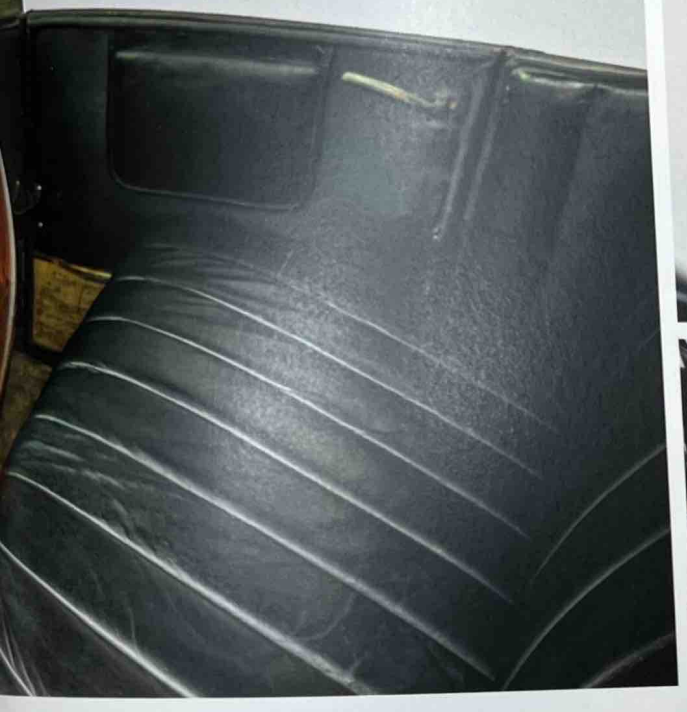
Leach-Biltwell at first limited itself to manufacturing only the bodies of automobiles and also repainting and refinishing existing cars. He could be regarded as the George Barris of his day, and his talents were in high demand by the growing class of film stars and motion picture executives who wanted their vehicles customized with new radiators, fenders, and wheels for an extra measure of style. And for

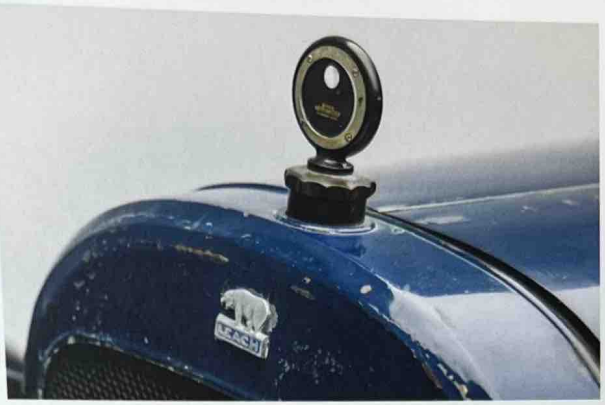
"[LEACH] COULD BE REGARDED AS THE GEORGE BARRIS OF HIS DAY, AND HIS TALENTS WERE IN HIGH DEMAND BY THE GROWING CLASS OF FILM STARS AND MOTION PICTURE EXECUTIVES."

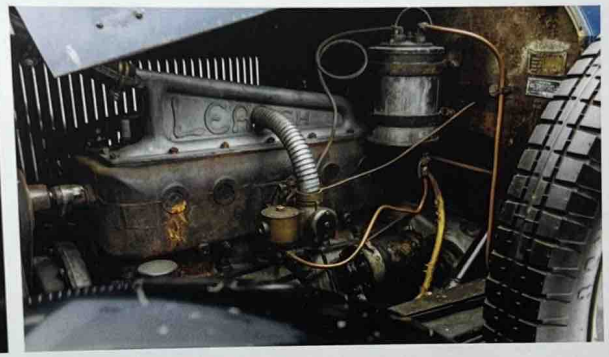
the ultimate in year-round, fair-weather motoring, Leach innovated a rigid, non-folding hardtop that could be fitted to an otherwise open touring car or roadster to give it overhead protection from the sun while allowing the sides to remain completely open and free of obstruction for a light and airy look. Often equipped with sliding windows for occasional full weather protection, the rigid superstructures became known as "California Tops" in keeping with their West Coast connection and were the earliest precursors to the fabric-covered, lift-off Carson tops of the 1950s.

Having had experience building entire bodies of cars, as well as substantially modifying existing coachwork with the addition of California Tops, wheel-hugging cycle fenders, and step plates that replaced running boards, Leach reasoned that well-heeled buyers would be willing to spend their money on an automobile that, instead of having to have such features added after taking delivery, offered them as standard equipment. His financial partners agreed with his reasoning, and by the summer of 1919, Leach's new automobile manufacturing enterprise had been capitalized at one million dollars, a healthy sum for an upstart firm in its day.

Available as a two- or four-door touring car, or two-passenger roadster–all with California Tops–Leach automobiles slowly began to trickle out of the factory. Touted as the most scientifically perfect manufacturing facility of its kind in America, the Leach plant covered 180,000 square feet of floor space and was almost entirely self-contained. It was said that raw materials could be delivered at one end of the plant and, in due course, a completed automobile would emerge from the other. Projections called for the production of 1,000 cars in 1920, each one of which was going to be equipped with the latest in fashionable styling







flourishes and convenience features.

Aluminum step plates and bicycle-type fenders were naturally a part of the package, but Leach automobiles were also equipped with a combined bumper/trunk rack, a Waltham combination speedometer and clock, and a collapsible steering wheel that pivoted out of the way to facilitate ingress and egress, or could be removed entirely for theft prevention. A rear-mounted electric turn and stop signal was one of the earliest such pieces of safety equipment to be offered as standard equipment on an American automobile. The engines were at first made by Continental (no relation to Lincoln) to Leach specifications, and other components were purchased from independent suppliers including the Delco electric system, Brown-Lipe transmission and clutch, and Spicer universal joints. The radiator core was a full four inches thick, adequate for cooling the car in even the most severe hot weather conditions.

The only Leach known to survive remains in entirely original condition, including paint, engine, leather interior, and fabric-covered California Top.

The automotive and popular press reported on Leach's activities, with *Motor West* magazine having an especially keen interest in the firm. Their December 1, 1919, issue reported that "Easterners, especially Detroiters, have been shaken in their skepticism over the Pacific Coast's ability to produce a quality car." But as good as the car was, Eastern manufacturers and industry analysts of the day could very well have had good reason to question the soundness of the enterprise, not because of any poor leadership, underfunding, or bad timing, but because Southern California lacked the four essential natural resources that are vital to industry: coal, iron, timber, and water. But what Los Angeles lacked in natural resources, Leach made sure it made up for in creativity and pride of manufacture.

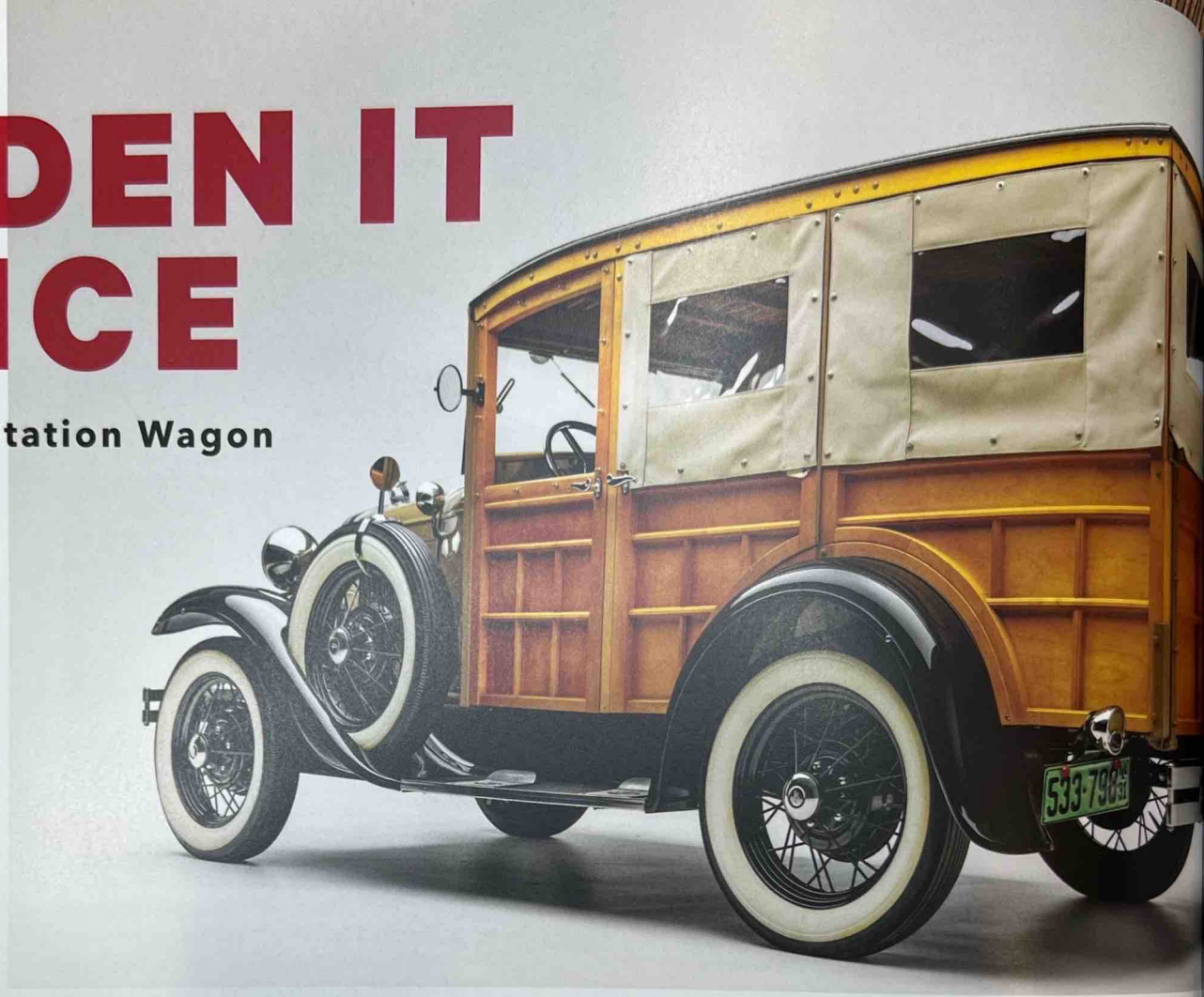
One creative individual who had opened an enterprise in California only a few years before Leach was Harry A. Miller, the mechanical genius who graduated from designing innovative carburetors in his Los Angeles shop during the early 1910s to creating some of the most revered vehicles that ever contested a race during the 1920s and 1930s. Realizing that a chic, expensive automobile needed an engine that was as special as the rest of the car, Martin Leach engaged Miller to design and manufacture the ultimate powerplant for his car, a single-overhead cam, six-cylinder engine with a multiple-disc clutch and three-speed transmission. Leach designated its engine the Power-Plus Six and made it available beginning in 1921, the same year that full-disc wheels replaced wire wheels for a more contemporary look.

The Leach was a promising package. At $6,500 it was one of the most expensive cars in America, but offered a kind of exclusivity that was difficult to match, even in the custom car realm. And the firm scored a product placement home run when the cars started showing up in newspapers and magazines in the company of the Hollywood superstars of the day. But the celebrating did not last long because once cars equipped with the new Miller-designed engines got into the hands of customers, they suffered catastrophic failures, and it is believed that the factory recalled all Power-Plus equipped vehicles so that their engines could be replaced with the tried and true Continental Red Seal units they had successfully used before. All subsequent Leaches were equipped with Continental engines, but even a substantial $1,000 price drop could not compensate for damage that the Power-Plus Six engine had done to the firm's reputation, and production came to an end in 1923.

Estimates of total Leach production range between 218 and 264 chassis, but only one survives. It was secured by one of the Leach creditors as partial payment for his investment and somehow managed to escape the wrecking yards of the 1930s and scrap drives of the 1940s to survive in outstanding original condition. It was once even owned by Bill Harrah of the famous Harrah Automobile Collection and came into the collection that now resides with the Petersen Automotive Museum when it was sold after Holiday Inn bought out the famous gaming mogul's empire. — *LK*

WOODEN IT BE NICE

1931 Ford Model A Station Wagon



No image evokes 1950s automotive nostalgia quite like that of a woodie station wagon. But wood-clad cars were hardly limited to the middle of that century. In fact, the earliest utility cars built in the teens had been fabricated primarily of wood simply because it was available, easy to work, and far less expensive than stamped metal. But when pressed steel swept the industry and all-metal bodies became the new standard, one component of the motoring landscape escaped the transformation for several decades: the station wagon.

Called "depot hacks," the earliest station wagons were first used to shuttle people and their luggage to and from railroad stations, hence the word "depot" in the name. Decidedly unglamorous and utilitarian, they were not intended for long-haul use so the reality that their passengers and luggage were completely open to the elements was not an issue. There was a small, but steady, demand for them, and before station wagons became regularly catalogued production models, it was usually up to a new car dealer to coordinate their fabrication.

Building one of the earliest woodies began with a dealership ordering a bare chassis from an auto manufacturer, then shipping it to a body maker. The body maker would consider the specifications, render a design that suited the buyer's needs, then fabricate it by hand from scratch. Once completed, the wooden body was shipped back to the dealer, who mounted it on the chassis and delivered it to the anxious customer. Both car and truck manufacturers alike offered chassis to be bodied in the most utilitarian way possible by companies like Columbia, Martin, Mifflinburg, Parry, Seaman, and Waterloo.

By 1923 station wagon utility had become so widely embraced that Star seized the opportunity to fill a market need by becoming the first manufacturer to offer such a model as part of its regular production program. A "depot hack" in its purest form, the Star Station Wagon had the kind of upright stance, severe angularity, and near complete lack of weather protection that would come to define station wagons for most of the next decade. Other low-end manufacturers followed with versions of their own, which often became the most expensive model in their product line. Chief among them, Ford began building their own woodie station wagons soon after the 1923 Star Station Wagon hit the market, ultimately becoming more closely associated with the body type than any other manufacturer.

Unlike other manufacturers, Ford Motor Company was able to harvest top quality maple, birch, and mahogany from its own forests at Iron Mountain, Michigan, which they

Early station wagons were built primarily of wood, a material that made vehicles constructed in limited series cost effective to manufacture.

did beginning in the era of the Model T. New for 1928, the Model A was Ford Motor Company's next big success. It offered buyers more comfort and performance than anything else in its class, and by the end of production in 1931, Ford had sold over 3.5 million of them. In order to cover the market as widely as possible, Ford began production of Model A "woodie" Station Wagons in April of 1929. It was to become the first practical, mass-produced station wagon offered by any manufacturer.

Being a more "practical" vehicle than its stablemates, the Model A was equipped with doors having inconvenient snap-in side curtains instead of roll-up glass windows, making for a considerably less luxurious motoring experience than could be found with most other Model A variants. And the plainness extended to the exterior, where the color choice was limited to Manilla Brown with black fenders and running boards. Ford emphasized the car as a "dual purpose" vehicle, one that could carry both cargo and up to eight passengers thanks to two rows of rear seats that could be bolted in or removed on short notice.

But despite its desirable dual-purpose nature, the Model A Station Wagon was never an important profit center for Ford, as its labor-intensive construction meant that they were built in smaller quantities than other models. The wood came in a variety of shapes and sizes, from long strips to smaller framing squares, and had to be tediously assembled by hand. It was then subject to additional sanding and re-varnishing until a uniform finish could be achieved. And weighing between 200 and 300 pounds more than all-steel vehicles, their performance was severely compromised. But likely the most difficult drawback to overcome was its price. Priced at $695 in 1929, a Ford station wagon was significantly more expensive than a $400 roadster or coupe.

Ford continued making wood-bodied station wagons even after the Model A had been retired in 1931, but the wood that made the cars desirable was also their undoing. Complicated and maintenance-intensive, wood frames and panels had become difficult to justify in the new-car market. On Fords built from 1949 through 1951, the only genuine wood was attached to the steel doors, sides, and tailgate. Responding to public demand for more durable family vehicles that required less maintenance, Ford introduced an all-steel wagon in 1952. Since the body was metal instead of wood, the new model was far less expensive to produce and did not require periodic and expensive sanding and re-varnishing. To maintain appearances, Ford kept a wood-trimmed vehicle in its model line from 1952 through 1954, but the wood, while genuine, was bolted to the metal and was decorative, not structural. By 1955 even the light-colored wood framing on Ford Country Squires was replaced with bolt-on, wood-grained metal trim.

Once on the used car market, many woodies found their way into the free-wheeling surfing community, which appreciated their roomy interiors and long roofs that could easily accommodate several surfboards. Many surfers respected their vehicles and extended their useful lives by refinishing them whenever necessary, while others would unceremoniously snap off pieces of unsalvageable rotted or sun-damaged wood to throw onto a bonfire. Surfing songs like "Surf City" by Jan and Dean, "Surfin' USA" by the Beach Boys, and others immortalized woodies, while a substantial number of "B" movies on the "Beach Blanket Bingo" theme captured them on film.

Today, any vehicle bodied in genuine wood is scarce because, even when brand new, they required the kind of specialized attention usually associated with classic wooden boats. And while an owner may not have had to periodically scrape off barnacles from its exterior, a woodie was virtually guaranteed to self-destruct if it did not get the kind of lavish attention it demanded, especially in western states like California, where high temperatures and sunlight baked their varnish and dried their wood. Unlike virtually every other type of vehicle, many more woodies survived on the East Coast than the West because they were stored in the winter, a practice that kept them off the road and extended their useful lives. And we are truly fortunate that so many are still with us because we have them to thank for being the unwitting precursor to that most important category of modern vehicles, the SUV. — *AN*

A RARE BIRD

1991 AAR Eagle HF89

The primary force behind the Eagle, Dan Gurney, ultimately became one of the few people in motorsports to have been successful as both a racing driver and race car builder. He was born on April 13, 1931, in Port Jefferson, Long Island, New York, to a family of artists, engineers, and entrepreneurs. The son of a Metropolitan Opera singer and grandson of the inventor of the Gurney ball bearing, Gurney showed an interest in racing engines early on. After he graduated from Manhasset High School in 1948, his family moved across the country to Riverside, California, where Gurney developed his driving skills by weaving through Southern California orange groves. He graduated from Menlo College and served two years with the United States Army.

When Gurney founded All American Racers (AAR) in 1965, modern Formula One racing was still in the early stages of its development. Well before the era of extreme ground effects and high-boost turbo engines, Gurney had made a name for himself as a driver for teams that included Ferrari, BRM, and Porsche. Yet while his track experience earned him early acclaim, it was his fascination with innovation in all its forms that helped propel him and AAR to their now-legendary status. One of his early triumphs dates back to the mid-1960s when Goodyear aspired for a competition car that could win the Indianapolis 500 while shod with its tires to beat out arch-rival Firestone. The firm turned to Gurney and Carroll Shelby, who advocated instead for a Formula One car that could victoriously represent America in international competition. Considering that the last American driver to win a Grand Prix driving an American car was Jimmy Murphy at the 1921 French Grand Prix in a Duesenberg, it was a formidable task. But the challenge was accepted, and the first AAR vehicle–the Eagle Mark I–debuted at the 1966 Belgian Grand Prix. It established a pattern of innovation for AAR that lasted more than forty years.

During the early 1980s, Gurney's All American Racers team began a relationship with Toyota to better enable the Japanese automaker to promote its rakish Celica in the IMSA GT Championship, which they won for both drivers and constructors in 1987. In 1989 AAR entered IMSA GTP racing with a chassis designed by Ron Hopkins and a body by Hiro Fujimori that employed advanced aerodynamics. The resulting car was christened the Eagle HF89, a designation derived from the last names of its designers and the year of its debut. Later known as the Eagle Mark II in honor of its significance to Gurney's AAR team, the car's aluminum monocoque frame was extremely rigid, making use of a honeycomb center for added strength. A separate subframe carried the 2.1-liter GTO Celica twin-cam engine while a body fabricated of composite carbon ensured outward strength and durability. Power was transmitted through a Hewland six-speed manual transmission. Suspension was supplied by double wishbones with outboard-mounted coil springs that were properly stiffened for maximum performance. Toyota Racing Development (TRD) engineer Drino Miller took the lead on engine development, which included developing a new management system for the twin-cam, four-valve motor. Dan Gurney oversaw the entire project, ensuring that the result would achieve an ideal balance between the needs of both machine and driver.

Powered by the highly developed Toyota engine,

the Eagle Mark II was specially prepared for IMSA GTP (Grand Touring Prototype) competition, and the example in the collection of the Petersen Automotive Museum was victorious in races throughout the 1991 season. Its appearance was timed to challenge Nissan's supremacy in the series, and, despite its relatively small engine, it was able to accumulate 23 wins in the 27 races it entered–an outstanding record by even the highest standards. Toyota-powered Eagles

The Eagle HF89 incorporates the signature "Gurney flap," giving it excellent aerodynamics that compliment its technical sophistication.

would ultimately achieve 17 consecutive victories and two manufacturers' championships.

Over his 15-year driving career, Gurney participated in every major series at the highest levels. He competed in 312 events in 20 countries with 51 different makes of cars and more than 100 different models, winning 51 races and 47 podiums. Among his most notable victories is his win at the 1967 Belgian Grand Prix piloting the Eagle Gurney-Weslake V-12. It remains the first and only time that an American driver has occupied the winner's circle of a World Championship Formula One race in a car of his own construction.

Gurney's achievements extend beyond being a race car manufacturer, team owner, and driver. In 1963 he helped foster the Indy car rear-engine revolution. He developed the "Gurney flap," an aerodynamic device adopted by the racing and aviation industry, and introduced the full-face helmet to Indy car and F1 racing. In addition, he started the tradition of spraying champagne on the winner's podium and co-founded the CART series and Long Beach Grand Prix. In 2002 he developed and built the revolutionary Alligator motorcycle, and in 2015 he received a patent for a twin-cylinder engine. — *LK*

1991 AAR Eagle HF89

CAR CON?

1975 Dale Mock-up

In 1994 the Petersen Automotive Museum acquired an odd, three-wheeled vehicle painted a vibrant yellow. Named the Dale, it has a flimsy, pseudo-aerodynamic body built of fiberglass, but no engine, transmission, or drivetrain. At first glance, it does not look like the kind of automobile that belongs in any serious car collection, but the Petersen Museum was not about to pass on the opportunity to acquire it. Because the Dale is more than merely a car. It is a rolling case study in exactly how *not* to build an automobile, how not to promote an automobile, and how not to buy an automobile. And the lessons it teaches, while serious, unfolded in the most improbable way imaginable.

The story of the Dale begins with the meeting of Liz Carmichael and Dale Clifft. Carmichael was working at the United States Marketing Institute during 1973, the year of the OPEC oil embargo that brought about the first gas crisis. Clifft had conceived of a sleek, minimalist three-wheeler with two seats and motorcycle-like engineering. Sensing it was the right car for the moment, in June of 1974 Carmichael convinced Clifft to partner with her to build a version of the vehicle that she believed would sell in the millions.

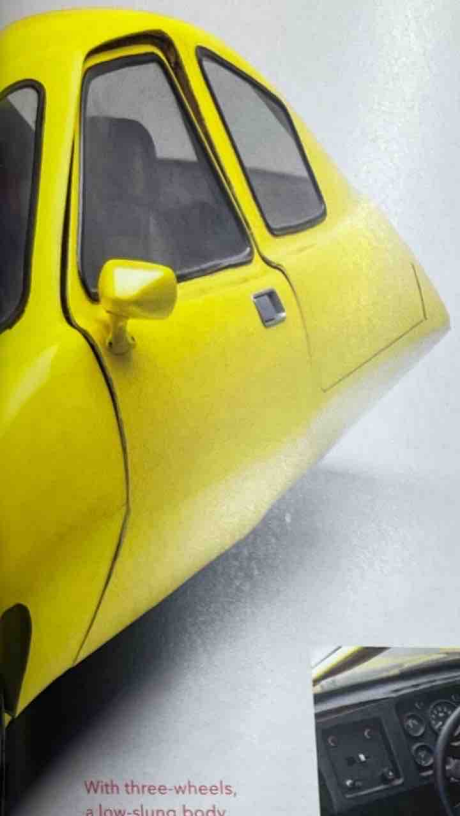
At 37 years old, Geraldine Elizabeth "Liz" Carmichael stood six feet tall and weighed a robust 200 pounds–an imposing figure who commanded attention. And whatever attention she could not attract with her persona she attracted with an impressive resume that included a Bachelor of Science degree in Mechanical Engineering from Ohio State University and an MBA in Marketing from the University of Miami. She was the widow of a NASA engineer, a mother of five, and a woman of great personal charisma who wasted no time establishing the car company she said would enable her to "rule Detroit like a queen."

Carmichael founded Twentieth Century Motor Car Corporation (TCMCC) in Encino, California, to bring the Dale to the public. A prototype was built, and a press release dated November 1974 announced its arrival. It was touted as being an advanced, space-age vehicle that got 70 miles per gallon, weighed under 1,000 pounds, cost less than $2,000, and was "dollar for dollar, the best car ever built." Deliveries of the car were scheduled to begin in June of 1975, the perfect time for a nation just beginning to come to terms with a lingering fuel crisis.

Americans during the mid-1970s wanted fuel-efficient cars, and they could not get them quickly enough. Small imports were selling fast, but the big American automakers were too large, ponderous, and steeped in tradition to bring new economy cars to market quickly. But a small company run by a savvy female entrepreneur with sound financial backing appeared to be capable of doing just that. Buyers, would-be dealers, and investors sent TCMCC millions of dollars for cars, franchises, and stock in the company.

A presence at the 1975 Greater Los Angeles Auto Show Sales lent the Dale all of the legitimacy that it needed. Showgoers could stand in front of a real car and see it with their own eyes as they read promotional literature describing its technical wonders. Potential buyers learned about how its printed-circuit dashboard was a breakthrough in advanced electronics and how the body was to be built of Rigidex, a virtually indestructible "rocket structural resin" that "could be run over by a tank or withstand a 50 mile-per-hour impact without significant damage." Films showed an engineering prototype running figure eights at El Mirage Dry Lake.

The *National Observer* and other newspapers and periodicals reported favorably about Carmichael and her new concept car. The automotive press was also interested, but for a very different reason. They wondered how high-volume production could possibly begin in June of 1975, as claimed, when the only running car built up to that time was an untested prototype, which they were



With three-wheels, a low-slung body, and room for just two, the Dale would have offered a dramatic alternative to mainstream American cars of the mid-1970s had it been mass produced.

not allowed to drive or even get close to. They also questioned the little car's ability to obtain government certification for crashworthiness and to meet EPA requirements. But the most difficult challenge facing Carmichael came not from the press but from government entities that she claimed were conspiring against her.

First, the California Department of Corporations issued a "desist and refrain" order charging that TCMCC was selling stock shares without a permit. Then, the Department of Motor Vehicles began to investigate the company for selling dealerships and yet-to-be-built cars without a manufacturer's license. TCMCC attracted even more unwanted attention in January 1975, when company salesman William D. Miller was shot and killed by fellow employee Jack Oliver, who it was soon discovered had previously served with Miller in San Quentin State Prison. In short, a lot was happening at Liz Carmichael's enterprise, and none of it was good.

Taking note of the commotion, the non-automotive press also began to aggressively question the soundness of Carmichael's business. Station ABC-TV in Los Angeles did a series of 27 investigative reports that revealed the Dale prototype to be badly engineered, poorly built, and blatantly misrepresented. Feeling the heat, Carmichael abandoned her Los Angeles operation and re-established it in Farmers Branch, Texas, where she could escape the bad publicity and continue to promote her car, now called the Revette.

Despite the move to Texas, Carmichael did not change her marketing strategy and continued to attract attention with bold claims for the car. The car was even offered as a prize on "The Price Is Right" (the contestant did not win the vehicle, which was best for everyone involved). But less than a month after the episode aired, Carmichael's efforts were again thwarted when a temporary injunction against the sale of stock–and the car itself–was issued. The key prosecution witness was a company engineer who testified that TCMCC was incapable of producing a viable automobile. Carmichael and nine other employees were charged with conspiracy to commit grand theft, and a warrant was issued for their arrest.

Carmichael must have heard the police coming because when they arrived at her house they found that she had fled mere moments before, leaving behind wigs, false breasts, and "a device used by female impersonators to disguise their sex." Criminal investigations soon revealed that she had no college degrees, had falsified her social security number, and did not have the family history she claimed. In fact, there was no record of a "Liz Carmichael" ever having existed prior to 1973. A "secret" that many had suspected suddenly became headline news: Carmichael was a transgender woman, born a male named Jerry Dean Michael. At last people were able to make sense of the imposing height, husky voice, and broad shoulders.

On February 10, 1975, a federal warrant was issued charging Carmichael with interstate flight to avoid prosecution. Other injunctions and fraud charges followed, and TCMCC assets were sold in late March to pay back-payroll taxes. Carmichael was arrested on April 12th, extradited to Los Angeles, and convicted on 14-year-old counterfeiting and bail-jumping charges. In March of 1977, she was convicted of fraudulently promoting the Dale, sentenced to state prison for two-to-twenty years, and ordered to pay $30,000 in restitution. During the seven-month jury trial, Carmichael was allowed to wear women's clothing to court, even though authorities considered her to be male and jailed her in a men's prison. Released on $50,000 bail pending appeal, Carmichael promptly disappeared.

In 1989 Carmichael was recaptured thanks to tips from viewers of the TV show "Unsolved Mysteries." Now 51 years old and using the alias Katherine Elizabeth Johnson, she was arrested–ironically–in the small town of Dale, Texas. She was again extradited to Los Angeles and was sentenced to nearly ten years in prison for conspiracy, grand theft, and stock fraud. Most of the $3 million collected from investors was never recovered. Dale Clifft, the car's original creator, died in 1981. Carmichael was released after 18 months in prison and resumed life as Geraldine Carmichael. She died in 2004.

So, what became of the cars? It is believed that at least two mock-ups and one complete, running car were built, all of which survive. Speedway Motors in Lincoln, Nebraska, acquired one mock-up and the rights to market the Dale in kit form, though they subsequently shelved that project. In 1989 the running prototype was purchased by a Glendale collector and is now owned privately. The Petersen Automotive Museum acquired its Dale, the non-running mock-up that sat in the lobby of TCMCC headquarters, in 1994. Today, many museum visitors who happen upon the car during a tour of the Vault walk right by it without imagining that such an odd piece of fiberglass could have any kind of story worth telling, only to find out that it just happens to be one of the most interesting of all. P – *AN*

ONE MAN'S DREAM

1948 Tucker

It is hard to believe today, but in the years immediately following World War II, there was a severe shortage of cars, and the American automobile industry was selling every vehicle it could make. Having at last seen the end of the global conflict, American automotive giants like General Motors, Ford, and Chrysler wasted no time switching from making bullets and battleships to the business of making the vehicles that would get the country back on the move. Nash, Hudson, Packard, Studebaker, and the other independents did the same thing, as did a handful of "me too" brands such as Crosley, Checker, and upstart Kaiser-Frazer. Then there was the Tucker, built by charismatic optimist Preston Tucker, who was going to teach Detroit a lesson about how easy it was to apply a bit of "out of the box" thinking to produce truly advanced cars. And at first it seemed to work. After all, who wouldn't want

The Tucker's fastback silhouette contributed to one of the sleekest designs of the era.

“... THE SPEC SHEET READ LIKE SCIENCE FICTION. UNFORTUNATELY FOR TUCKER, FICTION IS EXACTLY WHAT IT TURNED OUT TO BE ...”

what he was selling: a car that was sleek, safe, full of technical wonder, and–to put it in Tucker's own words–sassy. It turned out that a lot of people did want it, and they wasted no time letting him know.

With years of experience behind them, General Motors, Ford, and Chrysler knew a thing or two about engineering, building, and marketing new cars. In developing their ideas, they were well aware of the importance of savvy financial management, paying attention to legal issues, and the reality that it was sometimes necessary to compromise an otherwise promising design for the sake of product reliability and production streamlining. And while it was apparent that Tucker himself didn't show a great deal of enthusiasm for the less glamorous aspects of auto manufacturing, he managed to secure some big name talent to design the part of the car that would make the most overt public statement, the exterior.

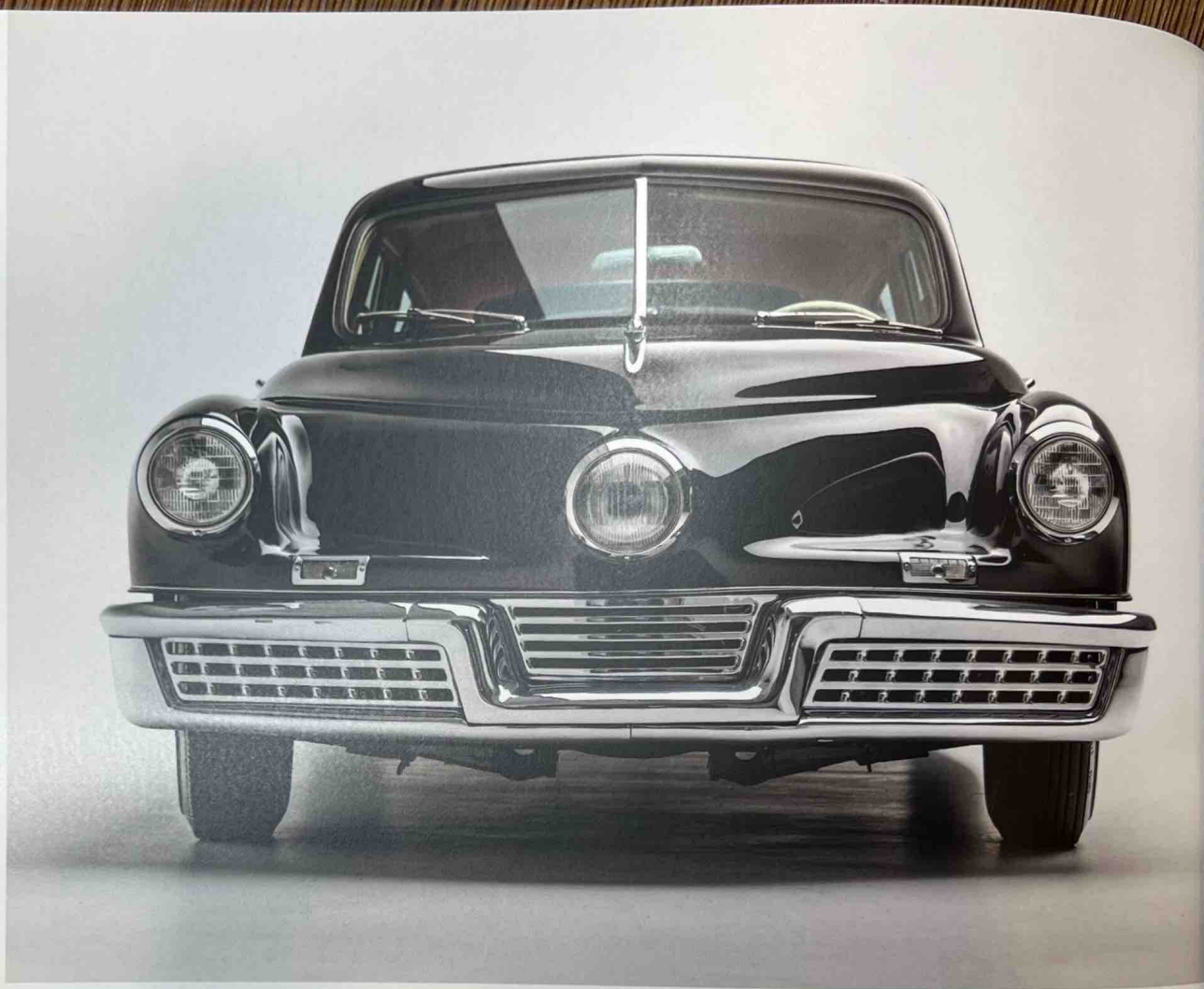
Foremost among them were well-known designers George Lawson (who conceived the over-the-top styling of the first scale model) and Alex Tremulis (who rationalized the design for production). Their ideas caused a public stir and gave Tucker good reason to claim that his brainchild was the "first completely new car in fifty years." But good design is one thing; good engineering is another.

No major manufacturer has ever wanted to risk getting a reputation for chronic warranty problems, so when a new drive system found its way into one of their vehicles, it did so almost always after it had spent years in development. But smaller manufacturers could incorporate innovations into their production cars with much shorter lead times, and many of them believed it was acceptable—even necessary—to take risks to capture the public's attention before anyone else did. Tucker fit the latter model perfectly. The fledgling firm had one chance to make a good first impression in order to capture press attention quickly and stay in front of the public eye. And it did so by assuring an anxious public that the car it was building would employ a host of exotic specifications that would make any owner the envy of their neighborhood.

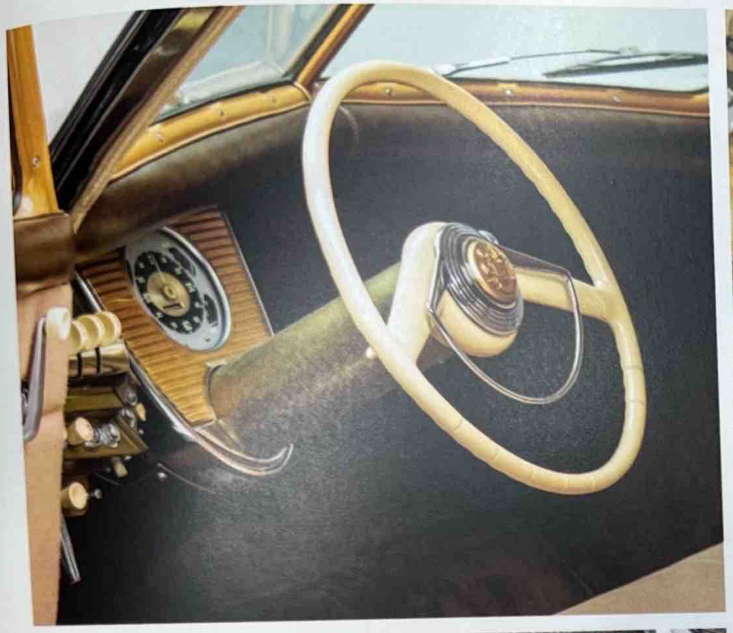
Among the mechanical wonders that Tucker had in store for the public was an enormous 589-cubic-inch (9.7-liter) flat-six, aluminum engine mounted transversely over the rear axle. It was estimated to generate a then-significant 150 horsepower, exactly the same as a Cadillac of the day. But whereas the General Motors product generated 283 pound feet of torque, the figure for Tucker's new engine was an astounding 450, a rating that would guarantee sports-car-like acceleration. Other advanced features included hydraulically actuated valves that would have made a camshaft unnecessary, a fuel-injection system that would have eliminated the need for a carburetor, a torque converter that would have replaced a clutch, and disc brakes that would have replaced drums.

To those enthusiasts for whom the future could not come fast enough, the spec sheet read like science fiction. Unfortunately for Tucker, fiction is exactly what it turned out to be, because every one of the car's new mechanical systems were under-engineered, under-tested, and under-performing. It seemed like nothing worked the way it should have. The quick fix for the biggest problem—the drivetrain—was to replace the scratch-built 589-cubic-inch powerplant with a tried-and-true Franklin helicopter engine, mate it to the transmission of an 810 or 812 Cord salvaged from a junkyard, source off-the-shelf drum brakes from a reliable supplier, and get back to promoting the product.

But what Tuckers lacked in mechanical advancements, they more than made up for with claims for the car's safety. And safety certainly would have been important considering the vehicle's appalling handling. After all, a Tucker's rear-mounted Franklin aircraft engine could push the 4,500-pound car from zero to sixty in just seven seconds, but throwing it into a turn could spell disaster for any driver not familiar with how to handle such a heavy car with a pronounced rear-weight bias. There was not much he could do to change the physics of unrefined weight distribution, but were Preston Tucker still with us, he



Three headlights, a padded dashboard, and a pop-out windshield contributed to the Tucker's renown as one of the safest vehicles of its day.



would be able to take comfort in the knowledge that his ideas of incorporating a padded dash and pop-out windshield to protect passengers in the event of a collision have long been universally employed.

Safety innovations not as well received over the long term were the Tucker's centrally mounted third headlight, which was said to improve nighttime vision when cornering because the light would turn in the direction of the front wheels. The claim made good press, but the pivoting headlight lit the way only after the driver had committed to a turn, providing no advanced look into the darkness. Even more questionable a safety innovation was the "Safety Crash Chamber" under the dash, a space into which the front seat occupants could dive when they saw that an accident was inevitable. But the idea begged the question: Why, if a driver had time to dive into the chamber, did they not also have time to steer away to avoid the accident? And as much as aficionados would like to give Tucker credit for making safety belts standard equipment on his automobiles, had he actually employed them, then the front seat occupants would not have been able to dive into the safety chamber because they would have been strapped in.

But it all became a moot point when the government and unhappy investors initiated legal action against Tucker. Their biggest claim was that he never intended to build a car. And while a spectacular gathering of several Tucker automobiles on the street outside the courthouse during his trial dramatically disproved the allegation, Tucker the man had lost his appetite for playing a high-stakes game with a buy-in that proved to be hopelessly inadequate.

Today Tucker would probably be very pleased to know that his cars have ultimately become so important to serious collectors, historians, and scholars and that as much study has been given to researching their individual ownership histories as any important race car or long-lost classic. Bearing serial number 30, the Petersen Automotive Museum's vehicle is no exception, having had eight documented owners beginning with Preston Tucker himself (who allowed it to be used for testing at Indianapolis) and ending in 1996 with Margie and Robert E. Petersen. It was to become their first acquisition after founding the museum, setting a high standard by which every subsequent acquisition would be judged.

Once disparaged for their shortcomings, Tuckers are now appreciated for the innocent playfulness that they embody, and they rank among the most valuable postwar American vehicles. Whether or not a Tucker was appreciated in its time has become immaterial. Preston Tucker's failure to succeed is well known—almost legendary—and while he didn't get very far, there were a lot of people who thought that he was in a better position to do so than anyone else. After all, he had money to invest, and he believed that the public would never be more ready for something genuinely new. Yet despite public readiness, just 51 Tuckers were ever built: one prototype in 1947 called the "Tin Goose" and 50 pilot production cars one year later. That the 47 surviving cars are now regarded with such respect only serves to illustrate that while certain automobiles are important because of what they are, an even larger number are important because of what they are not. — *LK*

CAN-AM CONQUEROR

1971 McLaren M8E/F

Today McLaren is known for high-speed, high-performance supercars like the P1, the 720S, and, most recently, the Speedtail. No ordinary road cars, they are made of lightweight carbon fiber, have incredibly powerful engines, and incorporate an aerodynamic design that makes them not only look faster, but also drive faster than the standard road car. Built according to a meticulous process at the company's workshop in Woking, Surrey, just outside of London, only about 5,000 McLarens leave the factory each year. Since they are so rare and the demand for them is so high, McLaren vehicles have come to embody the very definition of exclusivity. And while their styling may not be appreciated by everyone, their extreme performance and precise handling certainly are. But McLaren did not always build road cars. The company's origins began on the track as both a successful racing enterprise and supplier.

Though normally associated with Britain, McLaren's roots reach to New Zealand, which the company references with its signature kiwi badge. This is because Bruce McLaren, the founder of the company, was born in Auckland, New Zealand, in 1937 and based his first racing enterprise out of the southern island. McLaren entered his first competition in 1952 at the age of 15 and was so talented that by 1959 he had won the US Grand Prix, making him, at the age of 22, the youngest winner of the day. But more than a racing driver, he also had a background in automotive engineering thanks to the work he did at the service station that his parents owned. Drawing on this experience, McLaren began modifying existing cars before ultimately building his own. By 1963 he had accomplished what most racers of the day could only dream, the founding of his own racing enterprise, Bruce McLaren Motor Racing.

One of the first racing cars that McLaren created was the Zerex Special, which was campaigned during the late 1950s and early 1960s prior to McLaren purchasing it in 1964 and installing a new frame and engine. McLaren's new frame design was not only stronger than the original, it did double duty as a

mechanical component thanks to a provision that allowed oil and water to flow through it to cool the engine. And the changes to the car did not stop with the mechanical aspects. McLaren also installed an American engine in the car and changed its name to the Cooper Oldsmobile. With its aerodynamic profile and mid-engine V-8, the Cooper Oldsmobile proved pivotal to McLaren's racing success, bringing him a first place finish at Brands Hatch in 1963. The car also proved pivotal to the success of the McLaren company as well, as the Cooper Oldsmobile formed the basis for the M1A, the first racing car to be called by the name "McLaren."

The M1A was the first in a long line of alphanumerically designated cars that would include vehicles like the M6A, the M16E, and the M8E/F in the Petersen Automotive Museum's collection, which during the 1960s and 1970s brought a great deal of success to Bruce McLaren and fellow driver Denny Hulme, who started racing with the company in 1968. One of the contests in which these vehicles, and drivers, were most distinguished was the Canadian-American Challenge Cup, also known as the "Can-Am" series. First held in 1966, the Can-Am series evolved out of postwar amateur racing organized by the Sports Car Club of America (SCCA). Though the series required cars to be street legal, many racing teams found loopholes to gain an advantage on the track. This intensified competition and resulted in the use of increasingly exotic vehicles, leading Can-Am cars to become less dual-purpose sports/racing cars and more purebred racers.

Powerful engines combined with ultra -light weight and excellent aerodynamics made McLaren Can-Am cars virtually unbeatable during their heyday.

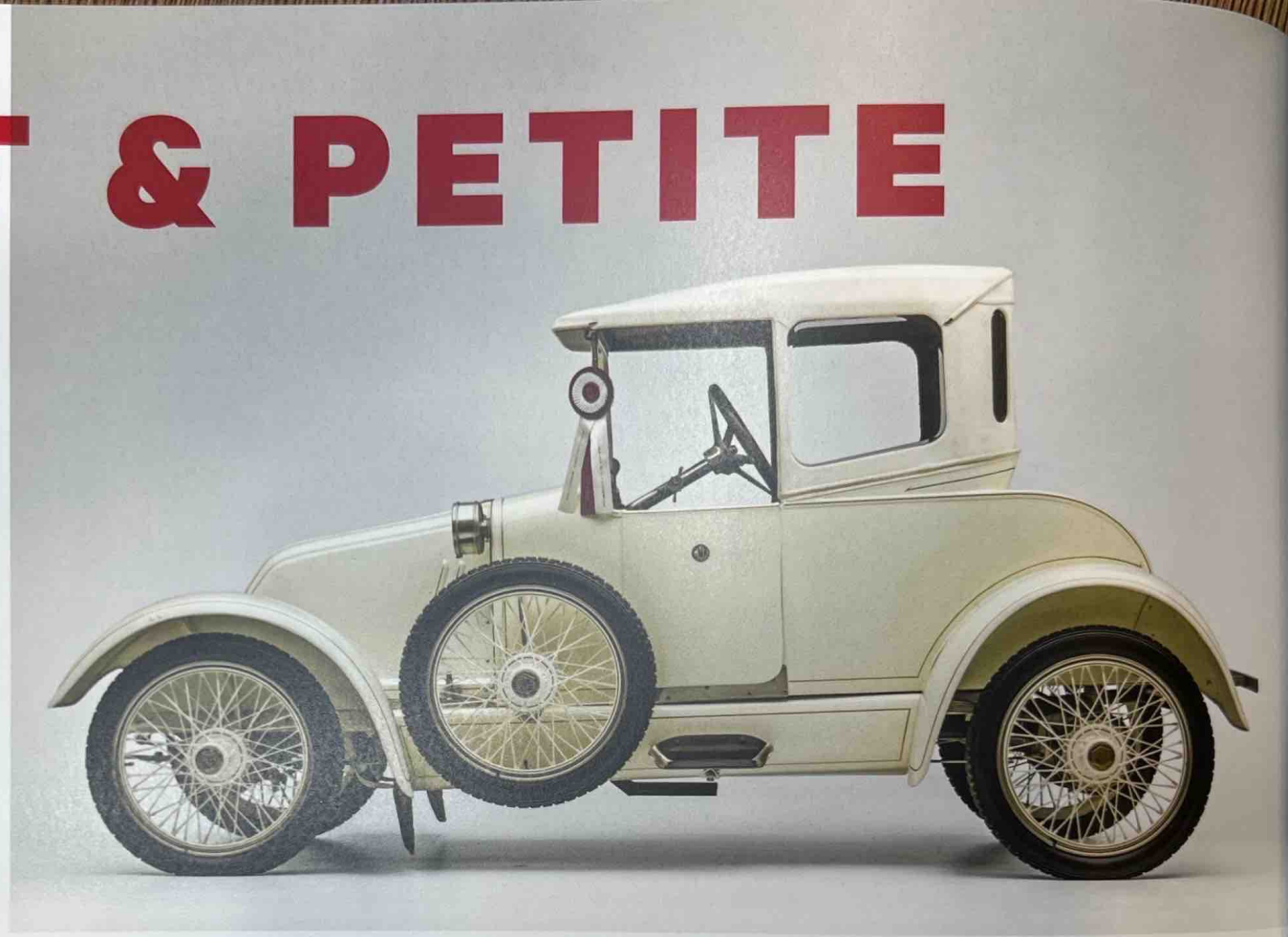
McLaren cars driven by team drivers McLaren and Hulme garnered many victories in the series. Especially notable was the drivers' string of victories in 1969, during which they won all 11 rounds of the 1969 Championship, leading some to dub the series "the Bruce and Denny Show." Many of the vehicles that brought them such success were developed out of McLaren's M8 series of racing cars. This series would include a line of cars starting with the M8A, running through the alphabet to the M8B, M8D, M8E, and M8F. The M8E/F in the Petersen's collection represents McLaren's success both on the track and in the marketplace. Yet while the M8E and M8F were built to comply with rules for the 1971 Can-Am season, they played different roles in the McLaren racing enterprise.

The M8E was manufactured to be sold to non-factory sponsored customers by Trojan, Ltd., an auto fabricator with which McLaren had contracted to build "road-going" versions of its Can-Am race cars. Powered by a 350-cubic-inch Chevrolet V-8 engine, which developed 400 horsepower, these cars could reach top speeds of around 180 mph. Conversely, the original M8F was the factory-sponsored counterpart to the M8E for the 1971 Can-Am season. Designed by Gordon Coppuck, the car featured new aerodynamic bodywork, better brakes, and an improved chassis design over previous vehicles in the M8 series. For 1971 two M8F cars were constructed for McLaren factory drivers Hulme and Peter Revson. Echoing McLaren's previous success in the Can-Am series, the M8Fs brought Hulme and Revson multiple victories in the series and helped Revson capture the overall win for the 1971 Can-Am season.

The M8E/F in the Petersen's collection combines aspects of both the M8E and the M8F. Originally built as an M8E, it remained in this configuration until 2016, the year it was restored by Canepa Motorsports and fitted with a new M8F body. With this, the vehicle gained the split designation of "M8E/F." In its modified form, this vehicle provides a snapshot of McLaren's 1971 Can-Am season, representing the marque's dominance as a racing team and its role as a racing car manufacturer and supplier. — *KF*

NEAT & PETITE

1915 Petite Speciale



By the early 1910s, year-round good weather and plentiful recreational opportunities had made Los Angeles a popular destination for wealthy individuals who, along with the emerging Hollywood elite, created a ready market for special vehicles to drive on the expanding network of open roads. As competition in the marketplace intensified, new car dealers in Southern California were among the first to acknowledge the relationship between a vehicle's outward appearance and its marketability, and many began attracting customers by painting their cars light colors, changing their wheels and tops, and altering other exterior design elements. Such changes endowed their products with a style and sporting dash that appealed to buyers living in the mild Southern California climate.

Built in Los Angeles, the Petite Speciale seemed tailor-made for the extroverted Southern California market. It had cycle fenders, a "California top" with beveled glass windows, racy wire wheels, and a great deal of nickel plating. Designer G.M. Kennedy took several years and spent more than $6,000 (the equivalent of $200,000 today) to build this prototype in an attempt to create the kind of small but dashing runabout that he believed Los Angeles-area buyers had been craving. And while his dream quickly faded, it was not for lack of understanding what the Los Angeles new car market had become.

The Petite Speciale was derived from the Little Princess, a small roadster built in Detroit from 1914 through 1916 by the Princess Motor Car Company. Designed by C.J. Thornwill, who had previously designed cars in England, the Little Princess was endowed with a European look and was at first equipped with a two-cylinder, 12-horsepower engine. Princess was one of dozens of firms founded during the early decades of the 20th century to make inexpensive automobiles for the mass market. It was also one of the dozens of firms that was forced out of the market when Henry Ford drastically reduced prices of his Model T. Princess may have failed, but before it did, in 1914 G.M. Kennedy of Los Angeles obtained chassis #173, which ultimately served as the basis for his new car.

Before he began transforming the Princess into the Petite Speciale, Kennedy must have given the sun-soaked, devil-may-care population of Southern California a great deal of thought. And the car could hardly be recognized as what it originally was, basic transport for two frugal people. Like the coach-built cars he saw in showrooms, at auto shows, in magazines, and on the streets, Kennedy's car seemed perfect for the kind of market in which motorists, instead of simply getting into their cars, wore them like articles of clothing. In New York, Chicago, and Philadelphia, one had to have a fine coat or jacket to make a good first impression. But by the mid 1910s in Los Angeles, one's automobile had become the primary means of doing that instead.

Why Kennedy chose so small a car upon which to create the kind of vehicle he believed would be irresistible to the West Coast market is not certain. Perhaps he just liked the swoopy, French-looking front and the compactness of

the overall package. Or he might have known one of the executives at Princess in Detroit who was desperate to find a new market. Or it could have been as simple as he already owned one of them. But however he came to acquire the vehicle, he renamed it the Petite Speciale, adding an "e" to the word "special" in order to give anyone reading the logo an impression that they were looking at a car of uncommon sophistication and, by extension, a distinctly upmarket European character.

When it came time to finalize the look of the vehicle that would distinguish its owner as an individual with a progressive outlook and youthful vigor, Kennedy seemed to know exactly what to do. And he made it very easy to distinguish the car as one with roots in a market that treated its cars like fashion accessories. Most readily apparent is the bright color Kennedy painted his car, a seemingly unremarkable decision until one considers how large a proportion of regular production cars in the day were painted in dark hues. Until about the time the Petite Speciale debuted, conservative individuals with conservative personal tastes dictated the appearance of their vehicles. Regarding the car as a proper means of transporting oneself, they did not want to be seen in something that betrayed them as anything but socially responsible community citizens. But the time for a bit of fun was at hand.

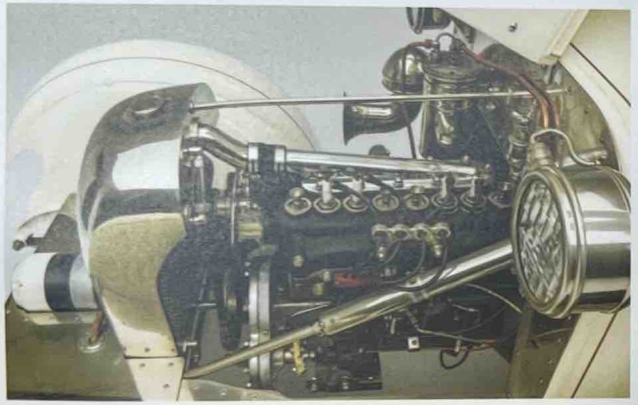
In addition to a paint job that distinguished his car from its more somber looking counterparts made in the Eastern United States, G.M. Kennedy threw away the existing fenders and running boards, which he replaced with wheel-hugging cycle fenders and decoratively designed, cast-metal step plates for ingress and egress. Combined with wire wheels that replaced the wooden spoke "artillery" wheels of the Little Princess, the car looked as if it were ready to race.

Kennedy also added a permanent fabric-covered top with no fewer than nine vertical beveled glass rear windows and a beveled glass window built into each side. Also called a "California top," the structure made the car look like a sporty roadster that had its top up. But like other California tops, it was permanently attached. And while it did not have side windows for the doors, these were deemed unnecessary for a vehicle intended to be operated in year-round good weather.

The other obvious upgrade was the enormous amount of bright metal plating it had acquired during its transformation from people mover to couture conveyance. Virtually every part of the vehicle that was not painted was either solid nickel or nickel plated. And this treatment extended even to the mechanical components, including an unusually large number of those under the hood.

G.M. Kennedy built an estimated five Petite Specials, but the car never went into full-scale production, reportedly because of a lack of financial backing and material shortages brought about by World War I. Sam Naman, a Fresno, California, enthusiast, purchased a Petite Speciale from Kennedy in 1934, then drove it in parades and exhibited it in county fairs through the 1950s. Upon his death, the Petite Speciale passed to his son, then sat idle for over 40 years. Another collector acquired the vehicle in November of 2007 and then commissioned a full restoration that returned it to its original bright color scheme.

This rare survivor illustrates how some entrepreneurs attempted to capture a portion of the early Southern California market by offering vehicles with flashy trim, bright colors, and progressive styling as a means of creating distinction in an already crowded, but lucrative, marketplace. P – *LK*



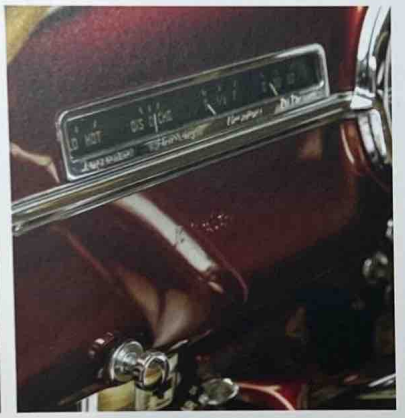
A bright color and plentiful brightwork gave the Petite Speciale a unique West Coast appeal and compared favorably with the darker colors normally offered by manufacturers from other regions.

FINE ATTIRE

1941 Cadillac Series 62 Coupe by Don Lee

The year 1941 was important for Cadillac. Its styling was heralded as the ideal blend of traditional and modern, performance had been substantially improved thanks to an increase in the compression ratio of its V-8 engine, and a fully automatic transmission was available for the first time ever. Model choices ranged in price from $1,345 for a Series 61 Coupe to $3,875 for a Series 75 Limousine with a division window. The press praised the 1941 Cadillac, and crowds constantly hovered around the cars at auto shows. The new models were so enthusiastically received by the public that the GM division had difficulty filling orders and needed to expand production to keep pace with demand. And the overabundance of used Cadillacs taken in trade on new ones drove down the price of second-hand luxury cars by 50 percent or more.

A portion of the 1941 Cadillac's sales success can be attributed to the brand having absorbed a clientele that would otherwise have purchased a La Salle, a nameplate that was discontinued the year before, yet whose spirit lived on in the entry-level Cadillac Series 61. But it was primarily the styling that attracted the immediate attention of the media and the public. The 1941 Cadillac's egg-crate grill and coffin-shaped hood were the brainchild of Art Ross, a GM designer whose work had been admired by up-and-coming styling genius Bill Mitchell, who would ultimately replace the legendary Harley Earl as head of GM Styling. Mitchell had physically positioned one of Ross's sketches in such a way that when Earl did his usual morning walkthrough of the design studio, he would be certain to see it. The plan worked; Earl was impressed, and the design was adapted for use over the entire 1941 Cadillac range. It came to represent one of the earliest influences of a new generation of designers who did not allow themselves to



A gift from early screen star Clark Gable to actress Carole Lombard, the 1941 Cadillac coupe featured body modifications that anticipated those widely adopted by post-World War II customizers.

be restricted by the traditions of the past.

Believing that a car should be decorated to enhance its lines in the same way that a woman should be accessorized to enhance her beauty, Harley Earl had developed a knack for punctuating the already well-conceived shape of a new car with carefully placed trim that was often described as chrome jewelry. Engineering advances made possible the lower silhouette of the new car, but the glistening trim helped to give its new architectural shape the greatest possible visual impact. Yet there remained a segment of the buying public that would not be satisfied with a stock vehicle, regardless of how beautiful it was. And in California, where cars were treated as the ultimate in outerwear, being seen in anything but the automotive equivalent of a specially tailored suit would be out of the question for many. This was especially true of the growing number of Hollywood movie stars who were expected to be seen in only the most glamorous vehicles to enhance their star power, which would draw fans into theaters to watch their latest films and ultimately benefit the studio. It was the kind of high-profile product placement that sold cars, movie tickets, and the Hollywood mystique.

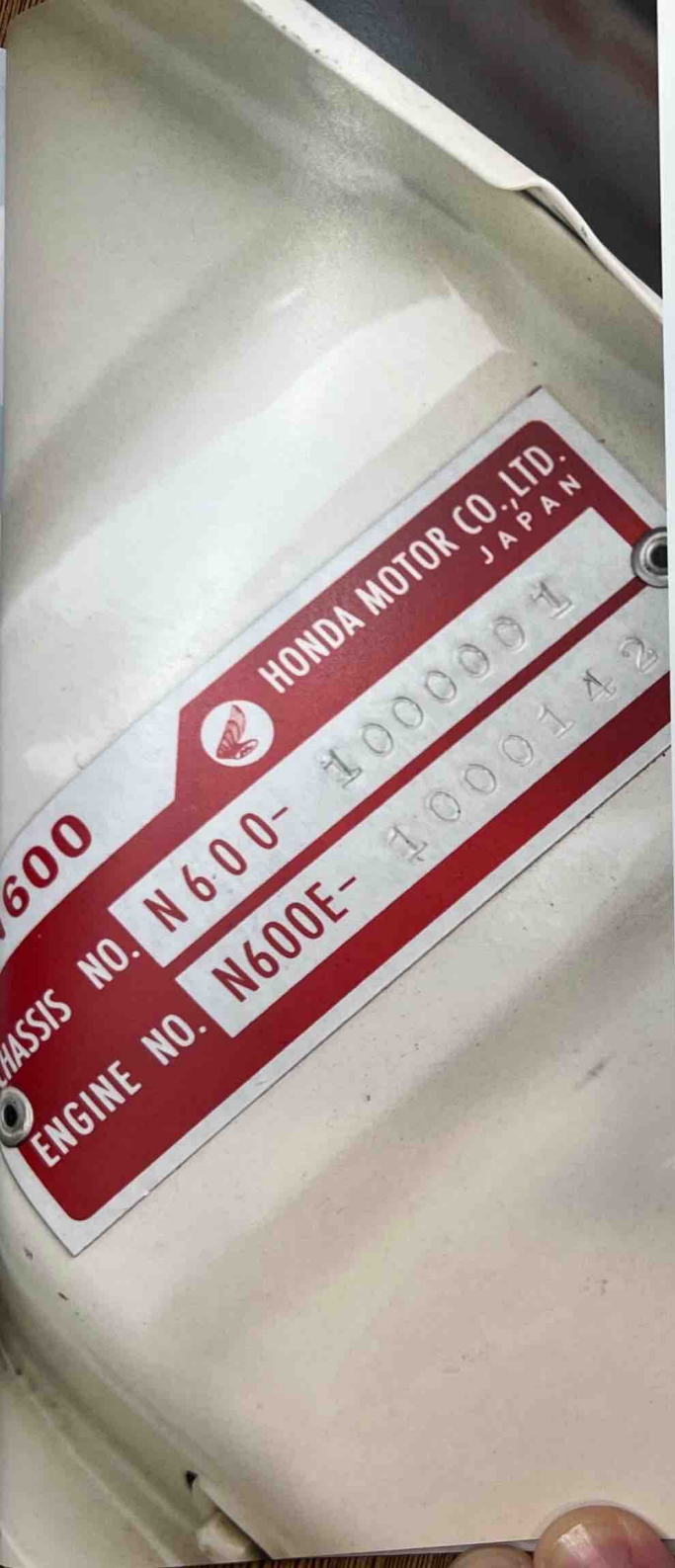
Like Steve McQueen was during the 1960s, renowned Hollywood actor Clark Gable was well known a generation earlier for his impeccable taste in automobiles. Having owned an ultra-expensive Duesenberg with a body customized by Bohman and Schwartz of Pasadena during the heyday of the Art Deco era, Gable was familiar with how strategic alterations of an existing vehicle's proportions and stance could transform it into something that was unlike anything else. He was also likely aware that customizing an existing car instead of having one designed and hand fabricated from scratch by a coachbuilder took far less time to build, cost far less to buy, and could be repaired in far less time in the event of a mishap. Always one of the first in line for any new car, Gable ordered a five-window coupe through Hillcrest Cadillac on Hollywood Boulevard, just steps away from Grauman's Chinese Theater.

After appropriate consultation with the staff at Hillcrest, the still-new car was sent to California Cadillac distributor Don Lee to be modified in ways that would ultimately be adopted by postwar customizers. Its roof was lowered ("chopped"), the rear quarter windows were filled in ("blanked"), and a portion of the side chrome trim was removed ("shaved"). The windshield was also raked rearward and a padded top covering was fitted. Possibly inspired by a La Salle that Hillcrest/Don Lee modified in almost precisely the same way for an Ohio businessman the year before, Gable had a sense of what made an already stunning car even more exceptional. Upon taking delivery, Gable gave it to his wife, screen star Carole Lombard, who he had married in 1939. After Lombard was killed in a plane crash in 1942, the Cadillac was sold to movie director Roy Del Ruth, who gave it to his son soon after.

Other 1941 Cadillacs to be expertly personalized prior to delivery were in-house styling department customs created for General Motors executives. Included among them were a chopped sedan for GM Board Chairman Alfred P. Sloan, a convertible sedan for Harley Earl himself, and a stretched sedan with a division window for the Duke and Duchess of Windsor, the only individuals outside of GM to have a car with a one-off Styling Section-designed body. But the Cadillac design department was not the only place that yielded viable ideas for bespoke vehicles. Non-General Motors 1941 Cadillac customs included a town car conversion of a Sixty Special by Derham, two huge convertible sedans on Series 75 Limousine chassis also by Derham, a Series 61 fastback coupe with a blind rear quarter and faux landau irons by Brunn, a Woodie "Vacation Wagon" built by Coachcraft of Hollywood for Charles Starrett, and a two-door convertible with a removable hardtop and front fenders that extended onto the doors that was also by Coachcraft.

It is not known what vehicle replaced the specially customized 1941 Cadillac in Gable's garage after he sold it, but he went on to own numerous other important vehicles after World War II. Included among them were one of the first Jaguar XK-120 alloy roadsters delivered to the United States and a Mercedes-Benz 300Sc Cabriolet, which has remained with the same Beverly Hills collector since he purchased it from Gable's widow (Kay Williams, the actor's fifth wife). The 1941 Cadillac, now in the collection of the Petersen Automotive Museum, is another of Clark Gable's stable of exceptional vehicles that has not ventured far from the place where he acquired it and today can be regarded as one of the earliest vehicles ever to have been given the "California Custom" treatment. — *LK*

Ferrari



VEHICLES ON LOAN

The composition of the Vault collection does not stop with vehicles owned by the Petersen Automotive Museum Foundation but extends to those automobiles of enduring significance that have been generously loaned by private collectors, corporations, and other entities. Very few automotive museums can hope to tell a comprehensive story of every aspect of automotive history without embarking on a vigorous targeted loan program. The small, but meaningful, number of borrowed vehicles selected for inclusion in this reference work speak in their own unique way to the spirit of the collection, the priorities of our outreach, and the substance of our mission. They are representative of the small remaining number of underrepresented areas of the Petersen Automotive Museum Foundation collection and highlight our ambition to acquire vehicles of their type as generous donors and museum supporters make them available.

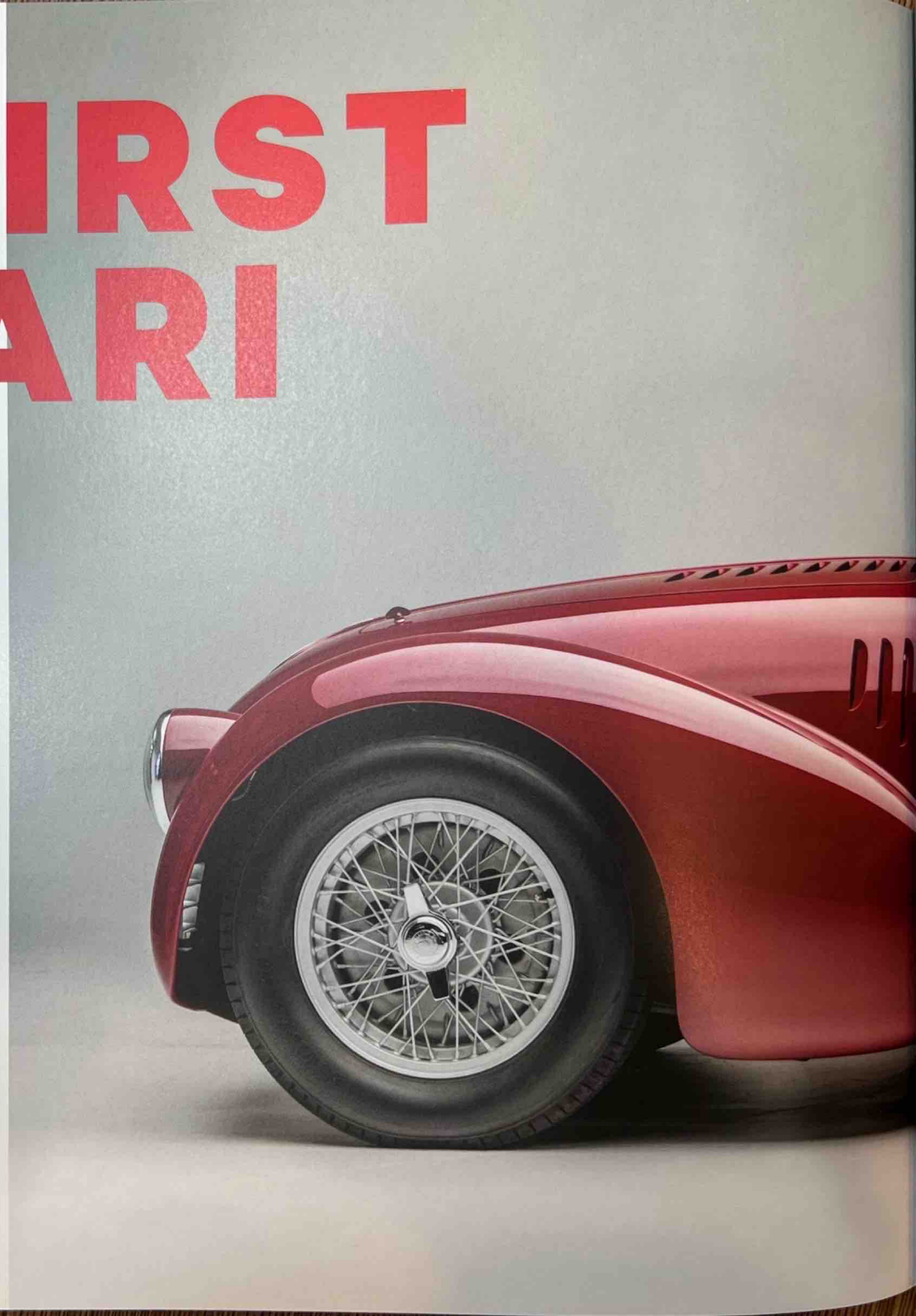
THE FIRST FERRARI

1947 Ferrari Tipo 125 S

Collection of Roger Willbanks

From the beginning, the Ferrari name has conjured images of race cars, high performance road vehicles, and a level of affluence reserved for the elite. But the origin of this prestigious brand dates back only to the Second World War and is rooted in the humble beginnings of its founder, Enzo Anselmo Giuseppe Maria Ferrari. And the car at the core of his ascent to greatness was the Ferrari 125 S on display in the Vault of the Petersen Automotive Museum.

Enzo Ferrari was born on February 18, 1898, in Modena, the younger of the two children of Alfredo and Adalgisa. His older brother, Alfredo Junior, often went by the nickname Alfredino ("Little Alfredo") or simply Dino. It was Alfredo Senior, a metalworker, who introduced a ten-year-old Enzo to racing when he took him and his brother to watch the 1908 Circuit di Bologna, an experience that convinced young Enzo that he wanted to become a race car driver. But the road to success was curvaceous and rutted. The deaths of both his father and brother from the flu in 1916 forced Enzo to grow up quickly, and he left school, joined the Italian Army in 1917, and shoed mules for the 3rd Alpine Artillery Division.



“... THE TIPO 125 S BROUGHT THE YOUNG COMPANY ITS FIRST VICTORY IN THE GRAND PRIX OF ROME ...”

The lithe and aggressive appearance of the first Ferrari established the marque's aesthetic for years to come.

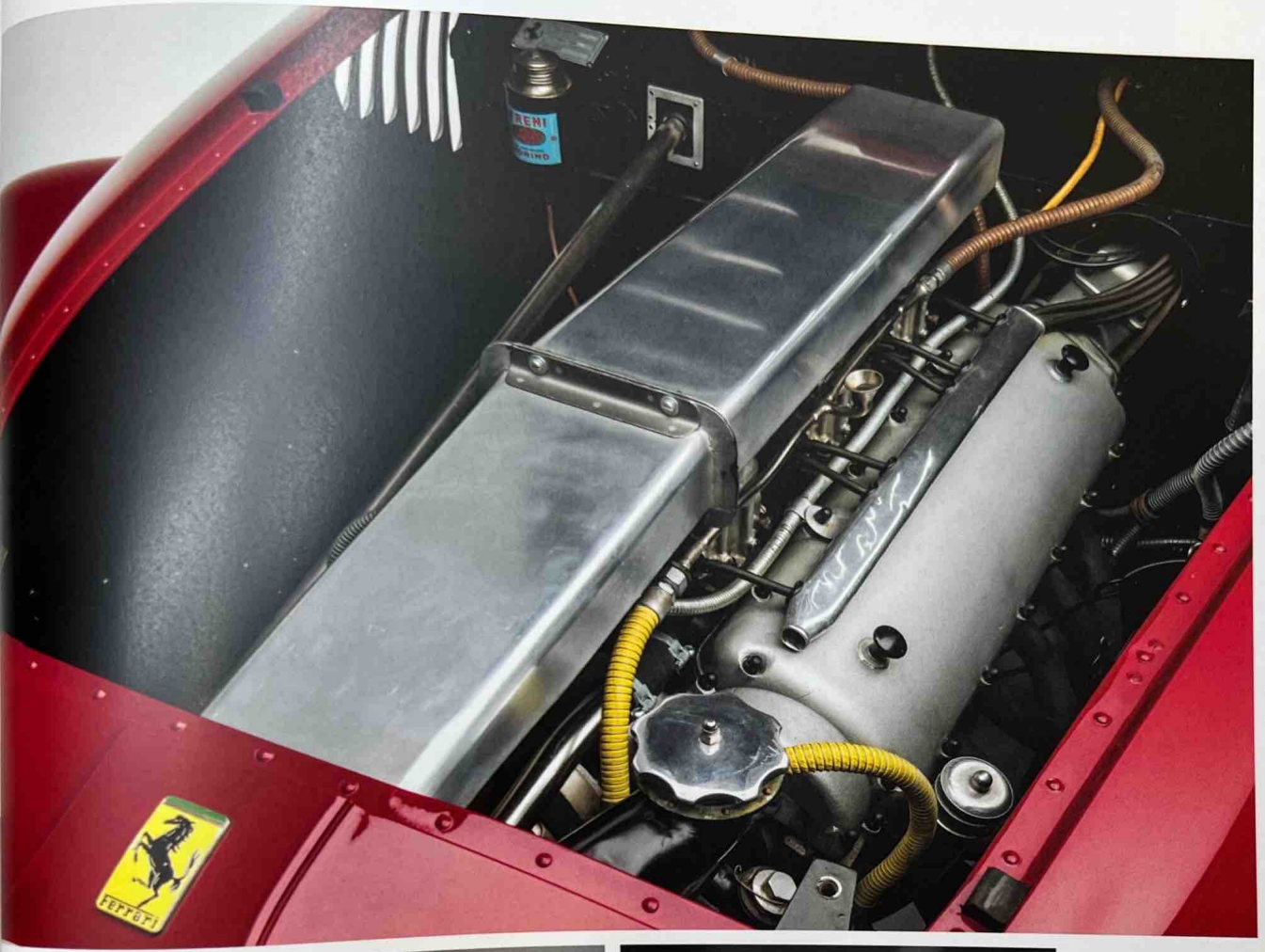
After being honorably discharged from the Italian Army–and almost dying himself from the flu pandemic of 1918–Enzo tried in vain to secure a foothold in the Italian automotive industry by getting a job at Fiat. He eventually found work as a test driver for CMN (Costruzioni Meccaniche Nazionali) in Milan, making his debut as a member of the company's racing team at the 1919 Parma-Poggio di Berceto hillclimb, where he finished a respectable fourth in his division. The following year, Enzo left CMN to begin his racing career as a driver for Alfa Romeo and in 1924 won his greatest victory, the Coppa Acerbo. Still racing for Alfa Romeo five years later, Enzo established the *Scuderia Ferrari* (“Ferrari Stable”) in his hometown of Modena. The Scuderia bought and prepared race cars for drivers, many of whom came from the Alfa team, an

activity that would eventually make the Scuderia the primary racing arm of Alfa Romeo.

Many early Alfa Romeo race cars sported the *Cavallino Rampante* ("prancing horse"), an emblem that is today synonymous with the Ferrari brand, but at the time simply represented the Scuderia. Enzo himself traced his use of the prancing horse to the famed World War I pilot Franceso Baracca, who decorated his fighter plane with the emblem. It was Baracca's parents, who Enzo met after winning the Cucuito del Savio in 1923, who suggested to Enzo that he should include the stallion on his race cars for good luck. Enzo agreed and adapted the prancing horse for his cars after adding a background of yellow, a color associated with Modena. The first appearance of the shield was at the 1932 Spa Grand Prix, where the two cars entered took first and second place.

Enzo's first son was born in 1932. Named Alfredo after his father, he was also given the nickname Dino. Having previously vowed to stop driving race cars if he ever became a father, Enzo retired from racing at the end of 1931 while his wife was expecting and began to focus on the management of his Scuderia, which became the unofficial Alfa Romeo racing team after the firm withdrew from competition in 1933 due to financial problems. After deciding to re-enter racing in 1937, Alfa Romeo began buying shares in the Scuderia Ferrari, which it intended to absorb and move to Milan where it became the company's racing division *Alfa Corse*. In 1938 Enzo Ferrari was appointed head of Alfa Corse, but disagreement with the parent company prompted him to leave in 1939 to build his own race cars. Part of his agreement to sever ties with Alfa Romeo was to refrain from using his own name on the cars he would build for a period of four years.

With an abrupt end to automotive racing due to the onset of World War II, Enzo established Auto Avio Costruzioni (AAC), a machinery workshop located in the Scuderia's old headquarters in Modena. In the same year, AAC was commissioned to build and prepare two racing cars for Lotario Rangoni, Marquis di Modena, and Alberto Ascari to drive in the 1940 Brescia Grand Prix. In late 1943, Ferrari moved AAC's workshop from



At one and a half liters, the first V-12 Ferrari engine was a masterpiece of design and engineering.

Modena to Maranello after his factory was bombed by Allied forces. The end of the war brought additional changes for Enzo and, since his agreement with Alfa Romeo had ended, Enzo Ferrari was finally able to design and build a race car that bore his name.

In 1947 the Ferrari Tipo 125 S rolled out of Enzo's Maranello factory with an all-enveloping aluminum roadster body that was proportionally lower and longer than virtually any other car of its era. The open cockpit design included a dipped beltline on the driver's side that provided essential elbow room to leverage the steering wheel through turns. Included among its technological breakthroughs was Ferrari's celebrated V-12 engine, which had a displacement of only 1.5 liters, or 125ccs per cylinder, hence the model designation. A newly designed five-speed manual transmission allowed drivers to best manage the engine's 118 horsepower. Integrated into the nose of the car were two stacked grilles–a large one for the radiator and a smaller intake to direct air to the V-12 engine's triple carburetors. Like the engine, the chassis was designed by Gioachino Colombo who specified a live rear axle and independent front suspension, both of which employed leaf springs.

The 125 S debuted at the Piacenza Circuit on May 11, 1947, driven by Franco Cortese. But, despite a significant lead, the car experienced a fuel pump problem and could not finish the race, leading Enzo Ferrari himself to conclude that the 125 S's racing debut was ultimately "a promising failure." Once repaired, the Tipo 125 S brought the young company its first victory in the Grand Prix of Rome a scant nine days later. Over the remainder of the season, the 125 S was raced 13 times, resulting in six wins. In all, only two versions of the Tipo 125 S are believed to have been made.

This 125 S (chassis 01C) was later rebodied and renumbered for sale as a 166 Spyder Corsa, a configuration in which it remained prior to an extensive restoration in 1999 that returned the car to its original specifications. And while much of the body had to be recreated, the chassis and most of the mechanical parts of the very first Ferrari remain intact, preserving a legacy that continues to this day. P – *JH*

A CUSTOM FUTURE

2002 Xeno III by Nick Pugh

Collection of Nick Pugh Studio

The design of a mass-produced automobile is rarely shaped by a single source. Consumer preference may determine overall aesthetics, and a myriad of designers and automotive executives refine the designs of today's mass-market vehicles. Yet, the process by which cars are manufactured often determines their ultimate form. Since Ford adapted it to Model T production in the early 1900s, most modern mass-produced automobiles have been built on an assembly line. Here, manufacture and assembly is broken down into a series of repetitive tasks performed by workers spread throughout a factory. Though this method creates large numbers of vehicles cheaply, it does so at the expense of an automobile's individuality. Cars built on assembly lines are standardized, leaving little room for personalization to their owners' tastes. Those wishing to own unique vehicles must turn to car customizers or perform alterations themselves. These methods, however, are expensive and time consuming, making them impractical to most consumers.

In the early 1990s, ArtCenter graduate Nick Pugh struck out with writer Mark Christensen to develop a new car company based on individuality and "21st-century coachbuilding." The idea was to base the design of each vehicle on the personal taste of a single customer. The process would combine the best off-the-shelf technology and hardware with handcrafted custom fabrication to produce a unique futuristic "Personal Concept Car" for each buyer. This process turned out to be too expensive and cumbersome to make a viable business, but the effort did result in a new vision for a practical and cost-effective method of creating one-off custom vehicles. Though beyond existing technology of the day, this method offered a vision for what could be in the future.

Rather than using the assembly line or handcrafted custom fabrication, Pugh proposed that automobiles could be manufactured using futuristic three-dimensional (3D) printing technology, combining the manufacture, assembly, and finishing of a car into a single, efficient, and entirely robotic process. Popular today for both personal and industrial use, 3D printing involves the use of mechanical devices called 3D printers that create objects by extruding a strictly controlled amount of liquid or semi-liquid material through a nozzle in a precise pattern controlled by computer software. This material is deposited on a surface in layers to form the finished object, similar to how a printer applies ink to a sheet of paper to produce a printed document. Though 3D printing resembles traditional forming methods, it differs in that it forms objects through a positive image, from the inside out, allowing a single machine to create a wide variety of objects.

Pugh envisioned an advanced version of 3D printing that would push the technology to extremes of scale, precision, and material flexibility. The proposed manufacturing model utilized this technology in the form of a "Personal Manufacturing Unit" (PMU), a garage-sized 3D printing system which could theoretically produce an entire car from scratch in a few hours. The functioning of this system can be

Nick Pugh's manufacturing process would allow for the cars of the future to be unique "individuals."

compared to the way life forms; starting from a single cell an organism expands in size through cell division driven by DNA instructions to eventually form whatever those instructions dictate. The PMU employs a convergent assembly process where a vehicle is built from nano-scale molecules into a full-sized functioning machine in a series of about 32 stages. The process starts out with the customer's unique design encoded into a highly detailed set of 3D instructions (V-DNA). This data is then used by the machine to dictate exactly how the vehicle will be "grown" starting at the molecular level.

The basic ingredient at the foundation of Pugh's manufacturing process is a hydrocarbon liquid. In the PMU, the molecular hydrocarbon chain is broken down and then recombined into desired sequences to make the basic building blocks of all the materials in the vehicle. Using the power of exponential scale, where each step doubles the size of the previous step, chemical reactions and robots double the size of the parts, producing a full-sized vehicle from a molecular scale within a few hours. In this way, a myriad of carbon-diamond materials can be made ranging from the rigid chassis, soft seat cushions, flexible and durable tires, conductive circuitry and wiring, and solid-state hydrogen storage batteries to transparent window surfaces and colored body panels. In the final larger-scale stages of the process, fabrication robots build the complex parts and move them to an area in the PMU where they are assembled into a completed car. The finished car then rolls out of the product exit door and to the consumer.

Because of the extremely precise way in which the materials can be created, Pugh's process allows these vehicles to have novel properties such as dynamic shape shifting, healing, reactive musculature, extreme strength with transparency, embedded circuitry, and distributed energy storage and power sources, all characteristics that are impossible with current technology. The resulting automobile will be far safer, less expensive, and more efficient and powerful than today's cars with the added distinction of being uniquely created for each customer. This new manufacturing idea is the concept embodied in Xeno III, which was presented at ArtCenter in Pasadena, California, in 2002. Its design represents the personal taste of Nick Pugh and offers a vision of what could be done for individual customers.

In designing the Xeno, Pugh gave the car a "maximalist" style, an intentional contrast to the manufacturing principle of minimalism, in which products must be designed as simply as possible to create a product that is as cheap as possible, much like the original Model T. In the Xeno's complex and unique style, Pugh rejected both modern functionalism and traditional automotive styling and gave the exterior of his car a crystalline form, alluding to a future in which a car's external form grows from its internal structure and is composed of a carbon-diamond material. The Xeno's sharply faceted exterior was also meant to showcase a design language in which the shape of objects does not correspond with their physical properties.

Pugh chose to finish his vehicle's body panels in gold, to symbolize optimism and abundance as well as referencing California, "The Golden State," where the Xeno was built at the at So-Cal Speed Shop in Pomona. Adding to its visual symbolism, in plating the Xeno, a functional object, with gold, a material usually reserved for luxury items, Pugh provided another distinct contrast to functionalist style. Among many other custom-built design elements, the Xeno features armrests that act as shock absorbers, custom headlight and taillight "jewels," and unusual windows that let the driver view the wheel assembly while the car is being driven. Windows are placed in areas that would normally be reserved for body panels to indicate the future of super-strong carbon-diamond materials that can be transparent and stronger than titanium.

Unlike many concept vehicles that are constructed only as exterior models, the Xeno is a fully functional vehicle. Powered by a 502-cubic-inch V-8 engine configured to run on compressed natural gas (alluding to the eventual use of hydrogen as fuel), Pugh's Xeno can produce about 500 horsepower and reach an estimated top speed of 160 miles per hour. The process of building the Xeno was chronicled in the book *Build the Perfect Beast* by author Mark Christensen.

At the time of the Xeno's manufacture, technological limitations made the production of such a vehicle unfeasible. Today, however, 3D printing similar to that described by Pugh, is becoming more prevalent in the automotive industry, allowing customizers to create tools, accessories, and replacement parts. Mini Cooper has offered services in which consumers could design their own 3D printed trim pieces. Some companies have even built entire vehicles using 3D printed parts. Though Pugh's vision of fully automated, software-driven vehicle production may still be a far-out idea, the evolution of this technology has shown a steady trend towards its realization. — *KF*

2002 Xeno III by Nick Pugh

SPACE-AGE SCOOTER

1955 Fuji Cabin 5A

Collection of Steve Girard, Nashotah, Wisconsin

During World War II, Japanese manufacturing capacity was given over almost entirely to war production. Immediately following the hostilities, Allied forces occupied Japan, and the early postwar years were characterized by rebuilding on a massive scale, with a great deal of financial and technical assistance provided by the victorious Western powers. At the same time, Japan's desire to shed the cultural and social teachings that precipitated its near demise was satisfied in part with the introduction of dramatic reforms.

Included among post-World War II Japanese reforms were a new political system, the undoing of overly influential economic and industrial alliances (*zaibatsu*), and greater civil liberties. Also embraced at the time were the principles concerning "Statistical Quality Product Administration," a new concept in manufacturing economies promulgated by W. Edwards Deming, an American expert on matters relating to business and production management. Also influential since its establishment in 1949, the Ministry of International Trade and Industry (MITI) joined in contributing to the ongoing viability of domestic manufacturing. It was a new age of enlightenment for a centuries-old culture that had come to recognize that a thoughtfully managed and carefully regulated automotive industry was a vital component of success in a post-industrial world. It also provided a confluence of circumstances that laid the groundwork for one of the most successful economic recoveries of all time. But it was a difficult start.

With Japan in a devastated turmoil after the war, many companies scrambled for survival. And while large cars were highly desirable, the shortage of raw materials and fuel necessarily led to the production of small, economical cars. Associated with Hino and Isuzu, Hitachi Aviation was an early antecedent to the organizations that would later produce the Fuji Cabin; the company was forbidden to build airplanes or any other object that could be used as a weapon of war and attempted to survive by producing civilian products. Hitachi ultimately became Tokyo Gas-Electric Manufacturing Company, which merged with Fuji Automobile and by 1952 was producing motorcycles and small, two-stroke engines called Gasuden. It also produced the Fuji Cabin, a tiny coupe built on scooter engineering principles with a fiberglass body styled by Ryuichi Tomiya, one of the most noteworthy early Japanese car designers who

had also worked for Nissan in the 1930s.

An enclosed scooter in concept, the jelly bean-shaped Fuji Cabin was intended to help fill the need for cheap cars during the postwar era. Unusually well engineered despite its simple appearance, the three-wheeler was powered by a one-cylinder engine complete with a kick-start, three forward speeds, and reverse. The ultra-lightweight car was built mainly out of fiberglass and readily available motor scooter parts and had tiny tires and three-wheel independent suspension. It was an attractively streamlined two-seater coupe of monocoque design, whose structural rigidity was enhanced by a full-length tunnel that channeled cooling air from the intake at the front of the car to the motor behind the passenger cabin.

Two hinged lids resembling the wings on the back of a beetle gave access to the motor of the Fuji Cabin and were equipped with louvers that allowed warm air to escape. To cut costs by reducing complexity, the earliest examples had just one door, which was positioned on the left side of the car, but serious ingress and egress issues prompted the addition of a door on the right side on later models so that the driver would not have to climb over the passenger seat and cooling tunnel to reach the staggered driver's seat. The steering was by a closely-placed set of handlebars akin to those of a small aircraft. The single dashboard gauge was a combination speedometer/odometer and its one windshield wiper was hand controlled by a lever ahead of the driver. Turn signals were mounted on short stalks on either side of the front bodywork and were actuated by a switch on the dashboard. A single cyclops headlamp was nestled at the forward end of a pod in the center of the attractively curved nosepiece.

Japan's first fiberglass car, the Fuji Cabin was powered by a scooter engine and offered staggered seating to give the driver essential elbow room.

The Fuji Cabin made its debut appearance at the 1955 Tokyo Motor Show. Reports of the day praised the feeling of solidity of the fiberglass structure, which was aided by the dense coat of insulation material sprayed throughout the inside of the body shell, including on the cabin roof, dashboard, and side panels. At a mere 115 inches in length, the vehicle was approximately half the size of a comparable Ford of the day. And whereas a Ford tipped the scales at about 3,200 pounds, the Fuji Cabin weighed a mere 550 pounds. Just 50 inches wide, the Fuji Cabin offered cramped accommodations for two, and since it was equipped with removable plastic side curtains instead of roll-down windows, it would have been uncomfortably hot on a warm day. Furthermore, the odor emitted from the still-experimental synthetic body material would have contributed to a unique interior ambience. With a 121.7-cc engine yielding a mere 5.5 horsepower, the Fuji Cabin's top speed was rated as a mere 28 miles per hour, making it a vehicle not to be hurried.

Stiff marketplace competition came in the form of Fuji's own Rabbit S-61 scooter and Honda's Dream motorcycle, which–at $450 and $490 respectively–compared favorably to the Fuji Cabin's $650 price tag. Unfortunately for Fuji, an extra $200 was regarded by most potential customers as too great a premium to pay for the convenience of an enclosed passenger cabin, side-by-side room for two, the stability of three wheels, and an unusually stylish body. And while plans called for the manufacture of between 400 and 500 units per month, just 85 cars were built in total. Thanks to a renewed appreciation for early Japanese motoring history and the charm inherent in small, quirky cars, modern enthusiasm for the Fuji Cabin is on a par with other ultra-small Japanese microcars like the Suminoe Flying Feather and Auto Sandal, and they remain prized, highly desirable alternatives to the earliest postwar Japanese vehicles produced by Datsun, Toyota, and Prince. — *LK*

1955 Fuji Cabin 5A

NUMBER 1

1967 Honda N600

Collection of American Honda Motor Co.

The Japanese auto industry began in the early 1900s and, by the 1930s, companies such as the Nissan Motor Company and the Toyoda Automatic Loom Works, which would build Toyoda (later Toyota) cars, had begun to produce their first vehicles. Approximately two decades later, in 1958, the first Japanese cars exported to the United States were shown at the Imported Car Motor Show at the Shrine Auditorium in Los Angeles. However, many Japanese automobile designs were thought merely to be low-quality imitations of European and American-built cars and were met with little favor here. Still, Japanese companies persevered in the United States, their primary target market, and throughout the 1960s continued to pursue a place in the American automotive market. One of the most prominent companies among them was the Honda Motor Company.

The story of the Honda Motor Company began shortly after the devastation of World War II, when Soichiro Honda founded the Honda Technical Research Institute to apply small-engine technology to one of Japan's remaining functioning modes of transportation, the bicycle. The company transitioned into building motorcycles and quickly expanded its presence into the automotive marketplace. Honda had, in only a decade, grown from a manufacturer of motorcycle parts to become the world's leading manufacturer of motorcycles. Seeking further opportunity, Honda expanded into manufacturing passenger automobiles, debuting its first tiny car, the Japanese-market N350, in 1966.

Honda was eager to begin its expansion into the global market for passenger vehicles and first entered the European market with the S600. Derived from its S500 sports car, the S600 was available as both a convertible and a fastback coupe and is considered Honda's first "mass-market" automobile, although it was never officially imported to the United States. In order to break into the American market, despite the country's initially tepid reception to Japanese vehicles during the late 1950s, Honda introduced the N600. The N600 was developed alongside the N360, which was produced for Japan's domestic market but featured changes to its design to make it more suitable for American roads. In 1967 a small group of N600s that were built to test public reception to the car in America arrived in Los Angeles, California.

In a blow to Honda's aspirations for the N600, the understated, two-cylinder car arrived on American shores at a time when domestic automotive design

and marketing began to skew in favor of sportier and more powerful cars. This shift came about because of the emergence of a new group of young consumers with interest in speed and power. In contrast to the 1950s, when prestige could be communicated through the use of futuristic gadgets, two-tone color schemes, and a great deal of chrome trim, in the 1960s a car's *performance* became increasingly important to its promotion and ultimate success in the automotive marketplace. It was an era in which affordable performance cars such as the Ford Mustang and Pontiac GTO were introduced.

The Honda N600, with its short wheelbase, 598-cc two-cylinder engine, and 45-horsepower rating, did little initially to impress American consumers, but a key turning point came with the advent of the 1973 Arab oil embargo and subsequent fuel crisis. Thanks to persistent gasoline shortages and renewed environmental concerns, consumer attitudes towards transportation came to be increasingly defined by an interest in rational, fuel-efficient vehicles. Honda's automotive offerings fulfilled this need admirably, and the firm soon began to gain traction in the American automobile market. By the 1980s, the company's place in the United States' automotive landscape was secure.

The two-cylinder, air-cooled Honda N600 was the manufacturer's first bold attempt to break into the US auto market.

The N600 on loan to the Petersen Automotive Museum courtesy of American Honda Motor Co. has a unique place in the history of Honda's debut in America. Known as "Serial One" for its 1000001 vehicle identification number, it is recognized as the first Honda imported into the United States. Yet, despite holding such a prominent place in Honda automobile history, the N600's whereabouts were unknown well into the 21st century. Its heritage almost erased by time, the diminutive car had a string of owners before being acquired by Honda restoration specialist Tim Mings in a package deal that included another N600 he saw at a swapmeet. Painted an incorrect bright green, the car was badly deteriorated from its years in the California sun, but a quick look at the serial number by Mings revealed its significance.

Mings began a full restoration of the vehicle using only original N600 parts and repainted it in its original creamy-white color. Interestingly, during the restoration Mings discovered that "Serial One" was slightly different in both construction and mechanical specification to later N600 vehicles. After the painstaking restoration was complete, the N600 appeared at the Japanese Classic Car Show in Long Beach, California. With its low serial number, unique mechanical specification, and role as the first vehicle to test reception of Honda automobiles in America, "Serial One" survives to represent the symbiotic relationship of the Japanese auto industry and American Japanese-car enthusiasts who work together to preserve and celebrate automobiles and automotive culture. — *KF*

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